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Classification of subjects of invention

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CLASSIFICATION

OF SUBJECTS OF INVENTION

OF THE

UNITED STATES PATENT OFFICE

ARRANGED BY DIVISIONS

WITH

CLASSES AND SUBCLASSES IN EACH

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REVISED TO JULY 1, 1908

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WASHINGTON  
GOVERNMENT PRINTING OFFICE

1908

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CLASSIFICATION  
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DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE,

*Washington, D. C., July 1, 1908.*

The following is the official classification of patents and inventions in the Patent Office. No changes will be made therein except by order of the Commissioner.

Should occasion arise for any modification of this classification, either by the discontinuance of any title or by the addition of a new one, the matter will be presented to the Commissioner for his action.

Examiners will not transfer patented drawings from one class or subclass to another except on approval of the Examiner of Classification.

Changes in classes and subclasses will be published in the OFFICIAL GAZETTE.

EDWARD B. MOORE,

*Commissioner of Patents.*

(3)

## SUBJECTS OF INVENTION.

Subjects of invention are divided into two hundred and thirty-seven classes, and assigned for examination to the forty-two Examining Divisions of this Office, as follows:

### DIVISION I.—EXAMINER LOEFFLER.

#### *Classes.*

- 39. Fences.
- 55. Harrows and Diggers.
- 97. Plows.
- 111. Seeders and Planters.
- 47. Trees, Plants, and Flowers.

### DIVISION II.—EXAMINER RAFTER.

#### *Classes.*

- 6. Bee Culture.
- 31. Dairy.
- 216. Label-Affixers.
- 129. Paper Files and Binders.
- 98. Pneumatics.
- 100. Presses.
- 186. Store-Service.
- 131. Tobacco.

### DIVISION III.—EXAMINER RICH.

#### *Classes.*

- 148. Annealing and Tempering.
- 96. Coating with Metal.
- 204. Electrochemistry.
- 22. Metal-Founding.
- 75. Metallurgy.
- 207. Shaping Fluid Metal.

### DIVISION IV.—EXAMINER POND.

#### *Classes.*

- 14. Bridges.
- 193. Conveyers.
- 212. Cranes and Derricks.
- 37. Excavating.
- 57. Hoisting.
- 61. Hydraulic Engineering.
- 214. Loading and Unloading.
- 189. Metallic Building Structures.

### DIVISION V.—EXAMINER LANE.

#### *Classes.*

- 11. Bookbinding.
- 56. Harvesters.
- 63. Jewelry.
- 84. Music.

### DIVISION VI.—EXAMINER SEAMAN.

#### *Classes.*

- 8. Bleaching and Dyeing.
- 23. Chemicals.
- 52. Explosives.
- 71. Fertilizers.
- 167. Medicines.
- 99. Preserving.
- 127. Sugar and Salt.

### DIVISION VII.—EXAMINER TOWNSEND.

#### *Classes.*

- 46. Games and Toys.
- 185. Mechanical Motors.
- 88. Optics.
- 93. Paper Manufactures.
- 208. Velocipedes.

### DIVISION VIII.—EXAMINER JOHNSON.

#### *Classes.*

- 5. Beds.
- 155. Chairs.
- 45. Furniture.
- 65. Kitchen and Table Articles.
- 211. Store Furniture.

### DIVISION IX.—EXAMINER TRYON.

#### *Classes.*

- 230. Air and Gas Pumps.
- 169. Fire-Extinguishers.
- 138. Hydraulic Motors.
- 103. Pumps.
- 182. Sewerage.

### DIVISION X.—EXAMINER MITCHELL.

#### *Class.*

- 21. Carriages and Wagons.

### DIVISION XI.—EXAMINER DISNEY.

#### *Classes.*

- 12. Boot and Shoe Making.
- 36. Boots, Shoes, and Leggings.
- 218. Button, Eyelet, and Rivet Setting.
- 54. Harness.
- 69. Leather Manufactures.
- 1. Nailing and Stapling.
- 231. Whips and Whip Apparatus.



DIVISION XII.—EXAMINER WRIGHT.

*Classes.*

- 187. Elevators.
- 64. Journal-Boxes, Pulleys, and Shafting.
- 184. Lubrication.
- 74. Machine Elements.

DIVISION XIII.—EXAMINER SEWALL.

*Classes.*

- 86. Arms, Projectiles, and Explosive Charges. Making
- 10. Bolt, Nail, Nut, Rivet, and Screw Making.
- 77. Boring and Drilling.
- 79. Button-Making.
- 59. Chain, Staple, and Horseshoe Making.
- 85. Driven, Headed, and Screw-Threaded Fastenings.
- 90. Gear-Cutting, Milling, and Planing.
- 205. Metal-Drawing.
- 78. Metal Forging and Welding.
- 80. Metal-Rolling.
- 76. Metal Tools and Implements. Making
- 29. Metal-Working.
- 163. Needle and Pin Making.
- 82. Turning.

DIVISION XIV.—EXAMINER MAXSON.

*Classes.*

- 7. Compound Tools.
- 164. Cutting and Punching Sheets and Bars.
- 168. Farriery.
- 153. Metal-Bending.
- 201. Metal-Ornamenting.
- 113. Sheet-Metal Ware. Making
- 81. Tools.
- 140. Wire-Working.

DIVISION XV.—EXAMINER STAUFFER.

*Classes.*

- 107. Bread, Pastry, and Confection Making.
- 91. Coating.
- 44. Fuel.
- 49. Glass.
- 222. Hydraulic Cement and Lime.
- 154. Laminated Sheets and Fabrics.
- 92. Paper-Making.
- 94. Paving.
- 95. Photography.
- 25. Plastic Block and Earthenware Apparatus.
- 106. Plastic Compositions.
- 18. Plastics.

DIVISION XVI.—EXAMINER W. A. KINNAN.

*Classes.*

- 178. Telegraphy.
- 179. Telephony.

DIVISION XVII.—EXAMINER HENRY.

*Classes.*

- 192. Clutches.
- 199. Linotyping.
- 198. Matrix-Making.
- 151. Nut and Bolt Locks.
- 101. Printing.

DIVISION XVIII.—EXAMINER GSANTNER.

*Classes.*

- 162. Injectors and Ejectors.
- 160. Steam and Vacuum Pumps.
- 122. Steam-Boilers.
- 121. Steam-Engines.
- 136. Steam-Engine Valves.

DIVISION XIX.—EXAMINER MOORE.

*Classes.*

- 236. Dampers, Automatic
- 110. Furnaces.
- 237. Heat-Distributing Systems.
- 126. Stoves and Furnaces.

DIVISION XX.—EXAMINER WILKINSON.

*Classes.*

- 3. Artificial Limbs.
- 16. Builders' Hardware.
- 32. Dentistry.
- 70. Locks and Latches.
- 109. Safes.
- 27. Undertaking.

DIVISION XXI.—EXAMINER GILES.

*Classes.*

- 13. Brakes and Gins.
- 19. Carding.
- 26. Cloth-Finishing.
- 28. Cordage.
- 38. Felt and Fur.
- 66. Knitting and Netting.
- 117. Silk.
- 118. Spinning.
- 139. Weaving.

DIVISION XXII.—EXAMINER COLWELL.

*Classes.*

- 124. Air-Guns, Catapults, and Targets.
- 102. Ammunition and Explosive Devices.
  - 9. Boats and Buoys.
  - 42. Firearms.
- 115. Marine Propulsion.
  - 89. Ordnance.
- 239. Railway-Rails and Joints.
- 238. Railway-Ties and Fasteners.
- 114. Ships.

DIVISION XXIII.—EXAMINER NEWTON.

*Classes.*

- 181. Acoustics.
- 133. Coin-Handling.
  - 58. Horology.
- 234. Recorders.
- 235. Registers.
- 161. Time-Controlling Mechanism.

DIVISION XXIV.—EXAMINER DARBY.

*Classes.*

- 2. Apparel.
- 223. Apparel Apparatus.
- 112. Sewing-Machines.
- 128. Surgery.

DIVISION XXV.—EXAMINER WYNNE.

*Classes.*

- 17. Butchering.
- 83. Mills.
- 130. Threshing.
- 146. Vegetable Cutters and Crushers.

DIVISION XXVI.—EXAMINER SHAW.

*Classes.*

- 219. Electric Heating and Rheostats.
- 191. Electricity. Electric Railways.
- 171. Electricity. Generation.
- 172. Electricity. Motive Power.

DIVISION XXVII.—EXAMINER GOULD.

*Classes.*

- 15. Brushing and Scrubbing.
- 51. Grinding and Polishing.
- 68. Laundry.
- 141. Washing Apparatus.

DIVISION XXVIII.—EX. ANDERSON.

*Classes.*

- 123. Internal-Combustion Engines.
- 60. Miscellaneous Heat-Engine Plants.

DIVISION XXIX.—EXAMINER MORRIS.

*Classes.*

- 147. Coopering.
- 227. Fire-Escapes.
- 228. Ladders.
- 108. Roofs.
- 157. Wheelwright-Machines.
- 20. Wooden Buildings.
- 143. Wood-Sawing.
- 142. Wood-Turning.
- 144. Woodworking.
- 145. Woodworking-Tools.

DIVISION XXX.—EXAMINER SULLIVAN.

*Classes.*

- 50. Fluid-Pressure Regulators.
- 67. Lamps and Gas-Fittings.
- 158. Liquid and Gaseous Fuel Burners.
- 197. Type-Writing Machines.

DIVISION XXXI.—EXAMINER ELY.

*Classes.*

- 195. Alcohol.
- 203. Ammonia, Water, and Wood Distillation.
- 202. Charcoal and Coke.
- 48. Gas. Heating and Illuminating
- 149. Hides, Skins, and Leather.
- 134. Liquid Coating Compositions.
- 196. Mineral Oils.
- 87. Oils, Fats, and Glue.
- 210. Water Purification.

DIVISION XXXII.—EXAMINER BANCROFT.

*Classes.*

- 209. Carbonating Beverages.
- 225. Dispensing Beverages.
- 221. Dispensing-Cans.
- 220. Metallic Shipping and Storing Vessels.
- 226. Packaging Liquids.
- 62. Refrigeration.

DIVISION XXXIII.—EX. W. A. COWLES.

*Classes.*

- 30. Cutlery.
- 53. Domestic Cooking Vessels.
- 174. Electricity. Medical and Surgical.
- 177. Electric Signaling.
- 72. Masonry and Concrete Structures.
- 135. Tents, Canopies, Umbrellas, and Canes.

DIVISION XXXIV.—EXAMINER SIMPSON.

*Classes.*

- 188. Railway-Brakes.
- 105. Railway Rolling-Stock.
- 104. Railways.

DIVISION XXXV.—EXAMINER NIXON.

*Classes.*

- 24. Buckles, Buttons, Clasps, Etc.
- 40. Card, Picture, and Sign Exhibiting.
- 241. Garment-Supporters.
- 116. Signals.
- 132. Toilet.

DIVISION XXXVI.—EXAMINER MORTON.

*Classes.*

- 156. Curtains, Shades, and Screens.
- 33. Drafting.
- 34. Driers.
- 159. Engraving.
- 73. Measuring Instruments.
- 170. Wind-Wheels.

DIVISION XXXVII.—EX. A. F. KINNAN.

*Classes.*

- 173. Electricity. Conductors.
- 175. Electricity. General Applications.
- 176. Electric Lighting.

DIVISION XXXVIII.—EXAM'R TUCKER.

*Classes.*

- 166. Artesian and Oil Wells.
- 215. Bottles and Jars.
- 119. Care of Live Stock.
- 35. Educational Appliances.

DIVISION XXXVIII.—EXAM'R TUCKER.—  
Continued.

*Classes.*—Continued.

- 43. Fishing and Trapping.
- 120. Stationery.
- 125. Stone-Working.

DIVISION XXXIX.—EX. A. W. COWLES.

*Classes.*

- 4. Baths and Closets.
- 137. Water Distribution.

DIVISION XL.—EXAMINER MERRITT.

*Classes.*

- 190. Baggage.
- 194. Check-Controlled Apparatus.
- 150. Cloth, Leather, and Rubber Receptacles.
- 232. Deposit and Collection Receptacles.
- 41. Fine Arts.
- 240. Lighting-Fixtures.
- 224. Package and Article Carriers.
- 229. Paper Receptacles.
- 206. Special Receptacles and Packages.
- 217. Wooden Receptacles.

DIVISION XLI.—EXAMINER BROWN.

*Classes.*

- 213. Railway Draft Appliances.
- 152. Resilient Tires and Wheels.

TRADE-MARK DIVISION.—EXAMINER  
CHAPMAN.

*Classes.*

- 165. Designs.
- Trade-Marks.
- Prints and Labels.



CLASSES NUMERICALLY ARRANGED.

Number.	Class.	Division.	Number.	Class.	Division.
1	Nailing and stapling	11	93	Paper manufactures	7
2	Apparel	24	94	Paving	15
3	Artificial limbs	20	95	Photography	15
4	Baths and closets	39	96	Coating with metal	3
5	Beds	8	97	Plows	1
6	Bee culture	2	98	Pneumatics	2
7	Compound tools	14	99	Preserving	6
8	Bleaching and dyeing	6	100	Presses	2
9	Boats and buoys	22	101	Printing	17
10	Bolt, nail, nut, rivet, and screw making	13	102	Ammunition and explosive devices	22
11	Bookbinding	5	103	Pumps	9
12	Boot and shoe making	11	104	Railways	34
13	Brakes and gins	21	105	Railway rolling-stock	34
14	Bridges	4	106	Plastic compositions	15
15	Brushing and scrubbing	27	107	Bread, pastry, and confection making	15
16	Builders' hardware	20	108	Roofs	29
17	Butchering	25	109	Safes	20
18	Plastics	15	110	Furnaces	19
19	Carding	21	111	Seeders and planters	1
20	Wooden buildings	29	112	Sewing-machines	24
21	Carriages and wagons	10	113	Sheet-metal ware Making	14
22	Metal-founding	3	114	Ships	22
23	Chemicals	6	115	Marine propulsion	22
24	Buckles, buttons, clasps, etc.	35	116	Signals	35
25	Plastic block and earthenware apparatus	15	117	Silk	21
26	Cloth-finishing	21	118	Spinning	21
27	Undertaking	20	119	Care of live stock	38
28	Cordage	21	120	Stationery	38
29	Metal-working	13	121	Steam-engines	18
30	Cutlery	33	122	Steam-boilers	28
31	Dairy	2	123	Internal-combustion engines	22
32	Dentistry	20	124	Air-guns, catapults, and targets	38
33	Drafting	36	125	Stone-working	38
34	Driers	36	126	Stoves and furnaces	19
35	Educational appliances	38	127	Sugar and salt	6
36	Boots, shoes, and leggings	11	128	Surgery	24
37	Excavating	4	129	Paper files and binders	2
38	Felt and fur	21	130	Threshing	25
39	Fences	1	131	Tobacco	2
40	Card, picture, and sign exhibiting	35	132	Toilet	35
41	Fine arts	40	133	Coin-handling	23
42	Firearms	22	134	Liquid coating compositions	31
43	Fishing and trapping	38	135	Tents, canopies, umbrellas, and canes	33
44	Fuel	15	136	Steam-engine valves	18
45	Furniture	8	137	Water distribution	39
46	Games and toys	7	138	Hydraulic motors	9
47	Trees, plants, and flowers	1	139	Weaving	21
48	Gas Heating and illuminating	31	140	Wire-working	14
49	Glass	15	141	Washing apparatus	27
50	Fluid-pressure regulators	30	142	Wood-turning	29
51	Grinding and polishing	27	143	Wood-sawing	29
52	Explosives	6	144	Woodworking	29
53	Domestic cooking vessels	33	145	Woodworking-tools	29
54	Harness	11	146	Vegetable cutters and crushers	25
55	Harrow and diggers	1	147	Coopering	29
56	Harvesters	5	148	Annealing and tempering	3
57	Hoisting	4	149	Hides, skins, and leather	31
58	Horology	23	150	Cloth, leather, and rubber receptacles	40
59	Chain, staple, and horseshoe making	13	151	Nut and bolt locks	17
60	Miscellaneous heat-engine plants	28	152	Resilient tires and wheels	41
61	Hydraulic engineering	4	153	Metal-bending	14
62	Refrigeration	32	154	Laminated sheets and fabrics	15
63	Jewelry	5	155	Chairs	8
64	Journal-boxes, pulleys, and shafting	12	156	Curtains, shades, and screens	36
65	Kitchen and table articles	8	157	Wheelwright-machines	19
66	Knitting and netting	21	158	Liquid and gaseous fuel burners	30
67	Lamps and gas-fittings	30	159	Engraving	36
68	Laundry	27	160	Steam and vacuum pumps	18
69	Leather manufactures	11	161	Time-controlling mechanism	23
70	Locks and latches	20	162	Injectors and ejectors	18
71	Fertilizers	6	163	Needle and pin making	13
72	Masonry and concrete structures	33	164	Cutting and punching sheets and bars	14
73	Measuring instruments	36	165	DESIGNS (Trade-Mark Division)	
74	Machine elements	12	166	Artesian and oil wells	38
75	Metallurgy	3	167	Medicines	6
76	Metal tools and implements Making	13	168	Farriery	14
77	Boring and drilling	13	169	Fire-extinguishers	9
78	Metal forging and welding	13	170	Wind-wheels	36
79	Button-making	13	171	Electricity. Generation	26
80	Metal-rolling	13	172	Electricity. Motive power	26
81	Tools	14	173	Electricity. Conductors	37
82	Turning	13	174	Electricity. Medical and surgical	33
83	Mills	25	175	Electricity. General applications	37
84	Music	5	176	Electric lighting	37
85	Driven, headed, and screw-threaded fastenings	13	177	Electric signaling	33
86	Arms, projectiles, and explosive charges Making	13	178	Telegraphy	16
87	Oils, fats, and glue	31	179	Telephony	16
88	Optics	7	181	Acoustics	23
89	Ordnance	22	182	Sewerage	9
90	Gear-cutting, milling, and planing	13	184	Lubrication	12
91	Coating	15	185	Mechanical motors	7
92	Paper-making	15	186	Store-service	2

# CLASSES NUMERICALLY ARRANGED.—CONTINUED.

Number.	Class.	Division.	Number.	Class.	Division.
187	Elevators.....	12	215	Bottles and jars.....	38
188	Railway-brakes.....	34	216	Label-affixers.....	2
189	Metallic building structures.....	4	217	Wooden receptacles.....	40
190	Baggage.....	40	218	Button, eyelet, and rivet setting.....	11
191	Electricity. Electric railways.....	26	219	Electric heating and rheostats.....	26
192	Clutches.....	17	220	Metallic shipping and storing vessels.....	32
193	Conveyers.....	4	221	Dispensing-cans.....	32
194	Check-controlled apparatus.....	40	222	Hydraulic cement and lime.....	15
195	Alcohol.....	31	223	Apparel apparatus.....	24
196	Mineral oils.....	31	224	Package and article carriers.....	40
197	Type-writing machines.....	30	225	Dispensing beverages.....	32
198	Matrix-making.....	17	226	Packaging liquids.....	32
199	Linotyping.....	17	227	Fire-escapes.....	29
201	Metal-ornamenting.....	14	228	Ladders.....	29
202	Charcoal and coke.....	31	229	Paper receptacles.....	40
203	Ammonia, water, and wood distillation.....	31	230	Air and gas pumps.....	9
204	Electrochemistry.....	3	231	Whips and whip apparatus.....	11
205	Metal-drawing.....	13	232	Deposit and collection receptacles.....	40
206	Special receptacles and packages.....	40	234	Recorders.....	23
207	Shaping fluid metal.....	3	235	Registers.....	19
208	Velocipedes.....	7	236	Dampers. Automatic.....	19
209	Carbonating beverages.....	32	237	Heat-distributing systems.....	19
210	Water purification.....	31	238	Railway-ties and fasteners.....	22
211	Store furniture.....	8	239	Railway-rails and joints.....	22
212	Cranes and derricks.....	4	240	Lighting-fixtures.....	40
213	Railway draft appliances.....	41	241	Garment-supporters.....	35
214	Loading and unloading.....	4			



CLASSES ALPHABETICALLY ARRANGED.

Number.	Class.	Division.	Number.	Class.	Division.
181	Acoustics.....	23	44	Fuel.....	15
230	Air and gas pumps.....	9	110	Furnaces.....	19
124	Air-guns, catapults, and targets.....	22	45	Furniture.....	8
195	Alcohol.....	31	46	Games and toys.....	7
203	Ammonia, water, and wood distillation.....	31	241	Garment-supporters.....	35
102	Ammunition and explosive devices.....	22	48	Gas. Heating and illuminating.....	31
148	Annealing and tempering.....	3	90	Gear-cutting, milling, and planing.....	13
2	Apparel.....	24	49	Glass.....	15
223	Apparel apparatus.....	24	51	Grinding and polishing.....	27
86	Arms, projectiles, and explosive charges. Making.....	13	54	Harness.....	11
166	Artesian and oil wells.....	38	55	Harrows and diggers.....	1
3	Artificial limbs.....	20	56	Harvesters.....	5
190	Baggage.....	40	237	Heat-distributing systems.....	19
4	Baths and closets.....	39	149	Hides, skins, and leather.....	31
5	Beds.....	8	57	Holsting.....	4
6	Bee culture.....	2	58	Horology.....	23
8	Bleaching and dyeing.....	6	222	Hydraulic cement and lime.....	15
9	Boats and buoys.....	22	61	Hydraulic engineering.....	4
10	Bolt, nail, nut, rivet, and screw making.....	13	138	Hydraulic motors.....	9
11	Bookbinding.....	5	162	Injectors and ejectors.....	18
12	Boot and shoe making.....	11	123	Internal-combustion engines.....	28
36	Boots, shoes, and leggings.....	11	63	Jewelry.....	5
77	Boring and drilling.....	13	64	Journal-boxes, pulleys, and shafting.....	12
215	Bottles and jars.....	38	65	Kitchen and table articles.....	8
13	Brakes and gins.....	21	66	Knitting and netting.....	21
107	Bread, pastry, and confection making.....	15	216	Label-affixers.....	2
14	Bridges.....	4	228	Ladders.....	29
15	Brushing and scrubbing.....	27	154	Laminated sheets and fabrics.....	15
24	Buckles, buttons, clasps, etc.....	35	67	Lamps and gas-fittings.....	30
16	Builders' hardware.....	20	68	Laundry.....	27
17	Butchering.....	25	69	Leather manufactures.....	11
218	Button, eyelet, and rivet setting.....	11	240	Lighting-fixtures.....	40
79	Button-making.....	13	199	Linotyping.....	17
209	Carbonating beverages.....	32	158	Liquid and gaseous fuel burners.....	30
19	Carding.....	21	134	Liquid coating compositions.....	31
119	Card, picture, and sign exhibiting.....	35	214	Loading and unloading.....	4
21	Care of live stock.....	38	70	Locks and latches.....	20
59	Carriages and wagons.....	10	184	Lubrication.....	12
155	Chain, staple, and horseshoe making.....	13	74	Machine elements.....	12
192	Chairs.....	8	115	Marine propulsion.....	22
204	Charcoal and coke.....	31	72	Masonry and concrete structures.....	33
26	Check-controlled apparatus.....	40	198	Matrix-making.....	17
23	Chemicals.....	6	73	Measuring instruments.....	36
21	Cloth-finishing.....	21	185	Mechanical motors.....	7
150	Cloth, leather, and rubber receptacles.....	40	167	Medicines.....	6
192	Clutches.....	17	153	Metal-bending.....	14
91	Coating.....	15	205	Metal-drawing.....	13
96	Coating with metal.....	3	78	Metal forging and welding.....	13
133	Coin-handling.....	23	22	Metal-founding.....	3
7	Compound tools.....	14	189	Metallic building structures.....	4
193	Conveyers.....	4	220	Metallic shipping and storing vessels.....	32
147	Coopering.....	29	75	Metallurgy.....	3
28	Cordage.....	21	201	Metal-ornamenting.....	14
212	Cranes and derricks.....	4	80	Metal-rolling.....	13
156	Curtains, shades, and screens.....	36	76	Metal tools and implements. Making.....	13
30	Cutlery.....	33	29	Metal-working.....	13
164	Cutting and punching sheets and bars.....	14	83	Mills.....	25
31	Dairy.....	2	196	Mineral oils.....	31
236	Dampers, automatic.....	19	60	Miscellaneous heat-engine plants.....	28
32	Dentistry.....	20	84	Music.....	5
232	Deposit and collection receptacles.....	40	1	Nailing and stapling.....	11
165	DESIGNS (Trade-Mark Division).....	163	1	Needle and pin making.....	13
225	Dispensing beverages.....	32	151	Nut and bolt locks.....	17
221	Dispensing-cans.....	32	87	Oils, fats, and glue.....	31
53	Domestic cooking vessels.....	33	88	Optics.....	7
33	Drafting.....	36	89	Ordnance.....	22
34	Driers.....	36	224	Package and article carriers.....	40
85	Driven, headed, and screw-threaded fastenings.....	13	226	Packaging liquids.....	32
35	Educational appliances.....	38	129	Paper files and binders.....	2
219	Electric heating and rheostats.....	26	92	Paper-making.....	15
173	Electricity. Conductors.....	37	93	Paper manufactures.....	7
191	Electricity. Electric railways.....	26	229	Paper receptacles.....	40
171	Electricity. Generation.....	26	94	Paving.....	15
174	Electricity. Medical and surgical.....	33	95	Photography.....	15
172	Electricity. Motive power.....	26	25	Plastic block and earthenware apparatus.....	15
175	Electricity. General applications.....	37	106	Plastic compositions.....	15
176	Electric lighting.....	37	18	Plastics.....	15
177	Electric signaling.....	33	97	Plows.....	1
204	Electrochemistry.....	3	98	Pneumatics.....	2
187	Elevators.....	12	99	Preserving.....	6
159	Engraving.....	36	100	Presses.....	2
37	Excavating.....	4	101	Printing.....	17
52	Explosives.....	6	103	Pumps.....	9
168	Farriery.....	14	188	Railway-brakes.....	34
38	Felt and fur.....	21	213	Railway draft appliances.....	41
39	Fences.....	1	239	Railway-rails and joints.....	22
71	Fertilizers.....	6	105	Railway rolling-stock.....	34
41	Fine arts.....	40	104	Railways.....	34
42	Firearms.....	22	238	Railway-ties and fasteners.....	22
227	Fire-escapes.....	29	234	Recorders.....	23
169	Fire-extinguishers.....	9	62	Refrigeration.....	32
43	Fishing and trapping.....	38	235	Registers.....	23
50	Fluid-pressure regulators.....	30	152	Resilient tires and wheels.....	41

. CLASSES ALPHABETICALLY ARRANGED.—CONTINUED.

Number.	Class.	Division.	Number.	Class.	Division.
108	Roofs.....	29	130	Threshing.....	25
109	Sates.....	20	161	Time-controlling mechanism.....	23
111	Seeders and planters.....	1	131	Tobacco.....	2
182	Sewerage.....	9	132	Toilet.....	35
112	Sewing-machines.....	24	81	Tools.....	14
207	Shaping fluid metal.....	3	47	Trees, plants, and flowers.....	1
113	Sheet-metal ware. Making.....	14	82	Turning.....	13
114	Ships.....	22	197	Type-writing machines.....	30
116	Signals.....	35	27	Undertaking.....	20
117	Silk.....	21	146	Vegetable cutters and crushers.....	25
206	Special receptacles and packages.....	40	208	Velocipedes.....	7
118	Spinning.....	21	141	Washing apparatus.....	27
120	Stationery.....	38	137	Water distribution.....	39
160	Steam and vacuum pumps.....	18	210	Water purification.....	31
122	Steam-boilers.....	18	139	Weaving.....	21
121	Steam-engines.....	18	157	Wheelwright-machines.....	29
136	Steam-engine valves.....	18	231	Whips and whip apparatus.....	11
125	Stone-working.....	38	170	Wind-wheels.....	36
211	Store furniture.....	8	140	Wire-working.....	14
186	Store-service.....	2	20	Wooden buildings.....	29
126	Stoves and furnaces.....	19	217	Wooden receptacles.....	40
127	Sugar and salt.....	6	143	Wood-sawing.....	29
128	Surgery.....	24	142	Wood-turning.....	29
178	Telegraphy.....	16	144	Woodworking.....	29
179	Telephony.....	16	145	Woodworking-tools.....	29
135	Tents, canopies, umbrellas, and canes.....	33			

NOTE.—Classes formerly numbered 180 183, 200, and 233 are obsolete

# DIVISION I.

EXAMINER LOEFFLER.

CLASSES.—39, Fences; 55, Harrows and Diggers; 97, Plows; 111, Seeders and Planters; 47, Trees, Plants, and Flowers.

## CLASS 39.—FENCES. (I.)

### Subclasses.

- |                        |                             |
|------------------------|-----------------------------|
| 1. Fences—             | 5. Gates—                   |
| 70. Barbed—            | 15. Compound,               |
| 102. Ribbon,           | 140. Counter-guard oper-    |
| 71. Visible,           | 24. Dropping,               |
| 64. Cat-guards,        | 21. Expanding,              |
| 4. Flood,              | 22. Jump,                   |
| 6. Iron—               | Openers—                    |
| 104. Panel,            | 91. Cab-door,               |
| 9. Wire—               | 92. Car-door,               |
| 72. Fabric,            | 93. Car-platform door,      |
| 12. Fasteners—         | 96. Hatch,                  |
| 76. Clamps,            | 94. Sliding-door,           |
| 105. Hooks,            | 95. Swinging-door,          |
| 106. Loops,            | 97. Window,                 |
| 107. Sleeves,          | 23. Oscillating,            |
| 108. Joints,           | 103. Race-starters,         |
| 109. Panel,            | 11. Railway—                |
| 73. Picket,            | 42. Cattle-guard,           |
| 74. Stays—             | 38. Electric,               |
| 78. Linked,            | 36. Mast—                   |
| 79. Lock-plates,       | 35. Automatic,              |
| 110. Lock-rod,         | 41. Platform-guard,         |
| 111. Tied,             | 37. Pneumatic,              |
| 112. Wire,             | 39. Rocking,                |
| 75. Strands,           | 44. Sliding,                |
| Stretchers—            | 43. Swinging,               |
| 52. Clutch-bars,       | 40. Vertically-moving,      |
| 46. Compensators—      | 7. Sliding—                 |
| 113. Levers,           | 29. Lever-openers,          |
| 114. Springs—          | 28. Pulley or rack openers, |
| 115. Compression,      | 30. Suspended,              |
| 116. Leaf,             | 31. Vibrating tracks,       |
| 117. Tension,          | 32. Sliding and swinging—   |
| Winders—               | 33. Hinged-roller,          |
| 118. Clutch,           | 34. Suspending-frames,      |
| 119. Spring,           | 8. Swinging—                |
| Grips—                 | 18. Folding-panel,          |
| 119. Sliding-jaw,      | 14. Hand-openers,           |
| 54. Levers—            | 20. Load-openers,           |
| 55. Attached,          | 17. Rotary,                 |
| 120. Double-clutch,    | 16. Self-closers,           |
| 121. Handle-jaw,       | 25. Tilting,                |
| 56. Loopers,           | 19. Vertically-adjustable,  |
| 47. Mid-wire take-ups— | 13. Tilting—                |
| 122. Journalled,       | 26. Folding-panel,          |
| 123. Tool-wound,       | 99. Turnstiles,             |
| 48. Path-closers,      | 100. Wire gates—            |
| 45. Permanent,         | 101. Frameless.             |
| Post-winders—          | Posts—                      |
| 124. Bracket,          | 86. Metal,                  |
| 125. Peg,              | 88. Wood,                   |
| 126. Roller,           | Braces—                     |
| 50. Vertical,          | 89. Lateral,                |
| 57. Rack-bars,         | 90. Longitudinal—           |
| 58. Ratchet-bars—      | 131. Strut,                 |
| 127. Single-ratchet,   | 132. Tie,                   |
| 59. Reel-carriers—     | 133. Truss,                 |
| 128. Automatic,        | 67. Metal—                  |
| 51. Removable,         | 134. Anchors,               |
| 63. Screws,            | 135. Compound,              |
| 60. Tongs,             | 136. Doubled,               |
| 61. Twin hooks,        | 137. Flanged,               |
| 62. Windlasses,        | 138. Flat,                  |
| 66. Wood—              | 139. Folded,                |
| 80. Panel—             | 69. Wood.                   |
| 83. Suspended,         |                             |
| 84. Worm,              |                             |
| 81. Picket—            |                             |
| 85. Panel,             |                             |
| 82. Tied,              |                             |

## CLASS 55.—HARROWS AND DIGGERS. (I.)

### Subclasses.

- |                             |                              |
|-----------------------------|------------------------------|
| 1. Clod-crushers—           | 7. Pivoted teeth.            |
| 21. Barred and corrugated   | 8. Pivoted tooth-bars—       |
| rollers—                    | 76. Frameless,               |
| 77. Disks,                  | 102. Lever-actuated—         |
| 22. Crush-bars,             | 103. Spike-tooth—            |
| 23. Crush-bars and harrows, | 129. Yielding-bar,           |
| 24. Toothed rollers and     | 104. Spring-tooth,           |
| wheels—                     | 105. Trailing-tooth,         |
| 78. Geared.                 | 130. Spring-tooth,           |
| 2. Forks—                   | 131. Yielding-bar.           |
| 25. Adjustable heads,       | 9. Potato-diggers—           |
| 26. Combined forks and      | 50. Bearing-wheel separa-    |
| shovels,                    | tors,                        |
| 27. Fodder-forks,           | 106. Beet-lifters,           |
| 28. Potato forks and shov-  | 107. Cutters,                |
| els—                        | 51. Endless-carrier—         |
| 79. Fulcrumed.              | 132. Platform inferior,      |
| 3. Harrows—                 | 133. Platform superior,      |
| 80. Center-hinged,          | 134. Plow pivoted inde-      |
| 29. Changeable-form,        | pendently,                   |
| 30. Disk—                   | 135. Plow pivoted on car-    |
| 122. Center-cutter,         | rier front,                  |
| 123. Disks,                 | 136. Plow pivoted on car-    |
| 81. Pivoted-gang—           | rier rear,                   |
| 82. Center-cutter,          | 137. Plow rigid,             |
| 83. Multiple-gang,          | 138. Rakes,                  |
| 124. Pivot-swung,           | 108. Graspers,               |
| 31. Expandible—             | 54. Plow and screen—         |
| 125. V-shaped,              | 139. Plow rigid,             |
| 32. Flexible,               | 53. Plow-clearers—           |
| 84. Multiple,               | 109. Reels,                  |
| 11. Revolving—              | 55. Plow vibrating screens—  |
| 126. Center-hinged,         | 110. Cam—                    |
| 85. Geared,                 | 140. Plow rigid,             |
| 13. Rotary,                 | 111. Crank—                  |
| 33. Spring-tooth—           | 141. Plow rigid,             |
| 127. Weeders,               | 112. Plow rigid,             |
| 86. Tooth-bars,             | 113. Sidewise—               |
| 34. Tooth-cleaners,         | 143. Plow rigid,             |
| 149. Trailing-tooth,        | 114. Tappet,                 |
| v-shaped,                   | 144. Plow rigid,             |
| 128. Wheel—                 | 57. Screen-cylinders,        |
| 87. Center-hinged,          | 56. Sifting—wheels, side-de- |
| 73. Disk,                   | livery,                      |
| 88. Floating,               | 58. Spiral conveyers,        |
| 89. Multiple,               | 59. Toothed-drum.            |
| 90. Pivoted tooth-bar,      | 10. Rakes—                   |
| 91. Riding attachments,     | 114. Heads,                  |
| 20. Rotary,                 | 145. Sweepers,               |
| 74. Spring—                 | 146. Tooth-cleaners.         |
| 92. Pivoted tooth-bar,      | 12. Rollers and harrows.     |
| 75. Trailing teeth,         | 14. Shovels—                 |
| 93. Winged,                 | 115. Attachments,            |
| 150. Winged.                | 147. Blades,                 |
| Harrow-teeth—               | 151. Fire,                   |
| 35. Spike—                  | 116. Handles,                |
| 94. Clamped,                | 117. Sifting.                |
| 95. Nutted,                 | Stalk-choppers—              |
| 96. Wedged,                 | 60. Draw-cut,                |
| 36. Spring—                 | 63. Reciprocating,           |
| 97. Sectional,              | Revolving—                   |
| 37. Trailing and draw-cut.  | 61. Horizontal—              |
| 5. Hoes—                    | 118. Breakers,               |
| 38. Adjustable,             | 62. Vertical,                |
| Blades—                     | 64. Vine-cutters.            |
| 99. Integral-shank,         | Stalk-pullers—               |
| 100. Integral-socket,       | 65. Hand—                    |
| 39. Compound—               | 148. Tongs,                  |
| 40. Adjustable,             | 66. Wheel.                   |
| 101. Handles,               | 17. Stone-gatherers.         |
| 41. Horizontal—             | 18. Transplanters—           |
| 42. Adjustable,             | 119. Ballers,                |
| 43. Interchangeable,        | 67. Dibbles,                 |
| 44. Toothed blades,         | 68. Pivoted jaws,            |
| 45. Weeding.                | 70. Post-bole diggers—       |
| 6. Land-rollers—            | 71. Pivoted jaws,            |
| 46. Furrowers and markers,  | Sliding jaws,                |
| 47. Pivoted,                | 72. Wheel-machines—          |
| 48. Weighted cylinders,     | 120. Tree-conveyers,         |
| 49. Weighted frames.        | 121. Wheel-planters.         |



# DIVISION 1.—CONTINUED.

## CLASS 97.—PLOWS. (1.)

### Subclasses.

- |                     |                              |
|---------------------|------------------------------|
| 1. Attachments—     | 11. Cultivator-teeth.        |
| 44. Harrow.         | 13. Fenders.                 |
| 2. Beams.           | 14. Gage wheels and runners. |
| 3. Cleaners.        | 15. Handles.                 |
| 4. Clevises.        | 17. Landsides.               |
| 6. Colters—         | 18. Moldboards—              |
| 43. Rolling.        | 23. Revolving.               |
| 5. Corn-coverers.   | 21. Plows—                   |
| 8. Cotton-choppers— | 12. Ditching,                |
| 45. Reciprocating,  | 19. Mole,                    |
| 46. Revolving—      | 40. Revolving.               |
| 47. Horizontal,     | 26. Shovel,                  |
| 48. Scrapers,       | 27. Sidehill,                |
| 49. Spacing-wheels. | 30. Steam—                   |
| 9. Cotton-scrapers. | 50. Alternating,             |
| 7. Couplings.       | 51. Rotary, horizontal,      |
| 10. Cultivators—    | 52. Screw,                   |
| 41. Hand—           | 53. Spaders,                 |
| 42. Wheel,          | 36. Wheel.                   |
| 20. Parallel,       | 22. Points.                  |
| 37. Revolving,      | 24. Ridgers.                 |
| 38. Rolling,        | 28. Sod-cutters.             |
| 25. Rotary—         | 29. Standards.               |
| 39. Horizontal,     | 32. Subsoilers.              |
| 31. Straddle-row,   | 33. Weed-turners.            |
| 34. Wheel—          |                              |
| 35. Straddle-row.   |                              |

## CLASS 111.—SEEDERS AND PLANTERS. (1.)

### Subclasses.

- |                               |                           |
|-------------------------------|---------------------------|
| 1. Broadcast—                 | Fertilizer-distributers—  |
| 38. Centrifugal scatterers,   | 13. Hand,                 |
| 2. Hand—                      | 14. Revolving hoppers,    |
| 39. Centrifugal scatterers,   | 15. Walking.              |
| 3. Revolving hoppers,         | 17. Force-feed.           |
| 4. Walking.                   | 19. Grain-drill cleaners. |
| 5. Check-row—                 | 24. Land-markers—         |
| 42. Anchors,                  | 41. Liquid and powder.    |
| 46. Endless belts,            | 25. Pivoted seed-cups.    |
| 44. Knots,                    | Planters—                 |
| 45. Reels,                    | 6. Corn,                  |
| 43. Wire-doers.               | 7. Cotton,                |
| 8. Cups on belt.              | 16. Foot,                 |
| 9. Cups on disk.              | 20. Hand—                 |
| Drills—                       | 21. Oscillating,          |
| 35. Adjustable rank,          | 22. Reciprocating,        |
| 18. Grain,                    | 23. Rotating,             |
| 36. Walking.                  | 27. Potato—               |
| 10. Drills and broadcast com- | 28. Walking,              |
| bined.                        | 32. Walking—              |
| 11. Drill-teeth.              | 33. Vibrating hoppers.    |
| 12. Elastic feed-wheels.      | 26. Plungers.             |
| 34. Fertilizer-distributers—  | 37. Rolling hoppers.      |
| 40. Feeding-belts,            | 31. Screw-feed.           |

## CLASS 47.—TREES, PLANTS, AND FLOWERS. (1.)

### Subclasses.

- |                              |                           |
|------------------------------|---------------------------|
| 15. Blanching.               | 29. Sap-buckets.          |
| 17. False stems.             | 11. Sap-spouts.           |
| 18. Flower-holders.          | 30. Seed-testers.         |
| 19. Flower-pots.             | 31. Stays and props.      |
| 20. Flower-work.             | 32. Strawberry-growing.   |
| 21. Garden-beds.             | 34. Transplanting-pots.   |
| 6. Grafting.                 | 35. Trap-belts.           |
| 22. Hand-screens.            | 36. Treatment—            |
| 23. Hanging baskets.         | 37. Implements.           |
| 13. Hedge-training.          | 33. Tree-covering.        |
| 7. Hop culture.              | 12. Trellises.            |
| 24. Lawn-vases.              | Trunk-guards—             |
| 27. Plant frames and houses. | 38. Cattle.               |
| 25. Plant-stands—            | 39. Vermin.               |
| 26. Revolving.               | 40. Turpentine-gathering. |
| 28. Root-guards.             | 41. Window-gardens.       |

# DIVISION II.

## EXAMINER RAFTER.

CLASSES.—6, Bee Culture; 31, Dairy; 216, Label-Affixers; 129, Paper Files and Binders; 98, Pneumatics; 100, Presses; 186, Store-Service; 131, Tobacco.

### CLASS 6.—BEE CULTURE. (II.)

(For definitions see Bulletin No. 18, p. 17.)

#### Subclasses.

- |                               |                         |
|-------------------------------|-------------------------|
| Appliances—                   | 1. Beehives—            |
| 11. Comb-foundation,          | 5. Bee-feeders,         |
| 10. Comb-frames,              | 4. Entrances and exits, |
| 8. Hive-connectors,           | 2. Frames—              |
| 12. Implements,               | 3. Pivoted,             |
| 9. Queen-bee cells and cages, | 6. Stands.              |
| 7. Swarm.                     |                         |

### CLASS 31.—DAIRY. (II.)

#### Subclasses.

- |   |                                    |
|---|------------------------------------|
| 64. Butter—                             | Churns—                            |
| 65. Cutters,                            | 17. Vibrating,                     |
| 66. Processes.                          | 18. Working body.                  |
| 25. Butter workers and molds.           | 27. Cream-pumps.                   |
| 67. Cheese—                             | 63. Drink-mixers.                  |
| 68. Cutters,                            | 75. Milk-cans—                     |
| 69. Processes.                          | 76. Breasts,                       |
| 21. Cheese-hoops.                       | 77. Closures—                      |
| 26. Cheese-turners.                     | 78. Locking—                       |
| 22. Cheese-vats and curd-breakers.      | 79. Key,                           |
| 7. Churns—                              | 80. Rotary,                        |
| 9. Double-acting,                       | 1. Coolers—                        |
| Reciprocating—                          | 82. Internal-tube,                 |
| Crank mechanism—                        | 83. Jacketed,                      |
| 29. Multiple-dasher,                    | 84. Ventilated,                    |
| 30. Single-dasher,                      | 85. Creaming—                      |
| 31. Combined lever and crank mechanism, | 86. Agitators,                     |
| 32. Foot mechanism,                     | 87. Vacuum,                        |
| 33. Hand and foot mechanism,            | 88. Floats.                        |
| Lever mechanism—                        | 70. Milking machines—              |
| Multiple-dasher,                        | 71. Catheter—                      |
| 34. Single-dasher,                      | 94. Suction.                       |
| 36. Rocking-seat mechanism,             | Compression—                       |
| 37. Without operating mechanism,        | 95. Fluid pulsations.              |
| Rotary—                                 | 96. Mechanical.                    |
| 38. Diagonal-dasher,                    | 73. Suction—                       |
| 39. Horizontal single-dasher,           | 97. Automatic cut-offs.            |
| Horizontal double-dasher—               | 98. Intermittent—                  |
| 40. Concentric shafts,                  | 99. Pulsators.                     |
| 41. Parallel shafts,                    | Suction and compression—           |
| 42. Vertical single-dasher,             | 100. External pressure pulsations. |
| Churns—                                 | 101. External suction pulsations.  |
| Rotary—                                 | 102. Teat cups.                    |
| Vertical double-dasher—                 | 13. Milk-stools.                   |
| 43. Concentric shafts,                  | 89. Milk-treating—                 |
| 44. Parallel shafts,                    | 90. Aerating,                      |
|   | 91. Circulation,                   |
|   | 93. Cooling,                       |
|   | 92. Vats.                          |
|   | 14. Pails and strainers.           |
|   | 28. Tables and racks.              |

### CLASS 216.—LABEL-AFFIXERS. (II.)

#### Subclasses.

- |                             |                      |
|-----------------------------|----------------------|
| 1. Cutter and plunger.      | 5. Runway-machines—  |
| 2. Label-affixers.          | 8. Gravity-feed,     |
| 3. Magazine.                | 6. Label-bed—        |
| 4. Pickers.                 | 7. Conveyer-feed,    |
| 10. Paper-hanging machines— | 9. Revolving-support |
| 11. Affixing.               |                      |

### CLASS 129.—PAPER FILES AND BINDERS. (II.)

(For definitions see Supplement No. 3, p. 2696.)

#### Subclasses.

- |                                     |  |
|-------------------------------------|--|
| 25. Binding-wires.                  | 1. Miscellaneous.                        |
| 35. Clamping—                       | 18. Notched leaves.                      |
| 36. Parallel bars,                  | 21. Pins—                                |
| 37. Spring-backs,                   | 22. Cord-carrying,                       |
| 2. Continuous-web.                  | 23. Guarded,                             |
| 13. Extensible pins and covers.     | 24. Hinged.                              |
| 43. File-boxes.                     | 4. Pins and followers—                   |
| File-engaging—                      | 5. Spring—                               |
| 38. Bars,                           | 6. Sliding.                              |
| 39. Cords,                          | 17. Pins and hinged backs.               |
| 40. Hooks.                          | 3. Pins and indexes.                     |
| 26. Followers—                      | 7. Pins and punches.                     |
| 27. Locking—                        | 8. Pins and transfer-wires—              |
| 29. Lever-operated catch,           | 9. Sliding-base,                         |
| 28. Racks,                          | 10. Swinging,                            |
| 30. Spring-operated catch,          | 11. Tilting.                             |
| 31. Tilting-release,                | 12. Projecting pins and covers.          |
| 32. Spring—                         | 20. Scrap-book and album leaves.         |
| 33. Double-acting.                  | 19. Stubs and flaps.                     |
| 14. Followers and index-partitions. | 41. Transverse cords.                    |
| 34. Hinged leaf-supports.           | 42. Transverse cords and leaf-attachers. |
| 15. Indexes—                        |  |
| 16. Card.                           |  |

### CLASS 98.—PNEUMATICS. (II.)

#### Subclasses.

- |   |  |
|---|--|
| 1. Aerial navigation.                       | Ventilation—                           |
| Chimney-cowls—                              | Car—                                   |
| Ejector—                                    | Forced-draft—                          |
| 2. Draft-wheel,                             | 19. Axle-motor,                        |
| 3. Directing-vane,                          | 20. Wind-motor,                        |
| 4. Stationary,                              | Natural-draft—                         |
| 5. Swing-valve,                             | 21. Dust and draft guards,             |
| 6. Tilting,                                 | 22. Injectors and ejectors,            |
| 7. Vane and draft-wheel,                    | 23. Systems,                           |
| 8. Injector,                                | 24. Train-pipe,                        |
| 9. Injector-ejector.                        | 33. Combined ventilators and cleaners— |
| Ventilation—                                | 34. Absorbent surface,                 |
| 39. Air moistening, cooling, and cleansing— | 35. Drip-surface,                      |
| 44. Absorbent surface,                      | 36. Dry filters.                       |
| 40. Atomizers,                              | 37. Water-tanks—                       |
| 41. Centrifugal,                            | 37. Spray-wheel,                       |
| 42. Drip-surfaces,                          | 25. Flue-heaters,                      |
| 43. Dry filters,                            | 26. Grain,                             |
| 43. Sprinkling-chamber.                     | 27. House,                             |
| 47. Vaporizing-pans,                        | 28. Mine.                              |
| 45. Water-tanks—                            | 20. Ventilating-chimneys.              |
| 46. Spray-wheel,                            | 31. Window-ventilators—                |
| Car—  | 32. Condensation-preventers.           |
| Fans—                                       |  |
| 17. Axle-driven,                            |  |
| 18. Wind-driven,                            |  |

# DIVISION II.—CONTINUED.

## CLASS 100.—PRESSES. (II.)

### Subclasses.

Baling—	67. Copying—
Articles and attachments—	63. Fluid-pressure,
14. Bales and bale-covers,	60. Hand-impressing,
15. Bale-band tighteners,	61. Hand-impressing, book-flexure,
16. Bale-ejectors,	62. Roller mechanism.
20. Binders,	Expressing—
19. Boxes and frames,	Articles and attachments—
21. Brakes,	50. Boxes and frames,
22. Condensers,	51. Cake-formers,
23. Discharge-end contracting devices,	52. Cake-strippers,
24. Division-blocks and block-inserters,	53. Cake-trimmers,
25. Feeders,	54. Mats,
27. Indicators,	35. Belt,
28. Movable bale-boxes,	36. Belt and plunger,
29. Plungers,	37. Belt and roller,
30. Retainers,	38. Disk,
1. Belt and roller,	Plunger—
Plunger—	39. Cam,
2. Cam,	40. Crank and pitman,
3. Crank and pitman,	41. Lever,
4. Lever,	42. Rack-bar and pinion,
5. Rack-bar and pinion,	43. Ratchet and grapple bar,
6. Ratchet and grapple bar,	44. Screw,
7. Rebounding,	45. Toggle-joint,
8. Screw,	46. Windlass,
11. Thrust-bar,	47. Roller,
9. Toggle-joint,	48. Screw,
10. Toggle-joint, inverted,	49. Without operating mechanism.
12. Windlass,	Packing—
13. Screw,	59. Articles,
65. Traction-operated.	55. Cheese,
Bundling—	56. Continuous-compression,
31. In lengths,	57. Single-compression,
32. In lengths, shingles,	58. Silos.
33. Wool.	

## CLASS 186.—STORE-SERVICE. (II.)

### Subclasses.

3. Buffers.	1. Gravity.
4. Carriers—	2. Propulsion—
13. Pneumatic,	11. Cable,
5. Wheeled.	14. Pneumatic,
15. Curved ways.	12. Spreaders.
6. Elevators and drops.	7. Switches.

## CLASS 131.—TOBACCO. (II.)

### Subclasses.

37. Cigar and cigarette cutters.	7. Granulating.
18. Cigar-bundling.	60. Leaf-treating—
38. Cigar-cutters, tip.	56. Booking,
5. Cigar-machines—	58. Stem-crushing,
39. Adjuncts,	57. Stemming.
40. Apron—	30. Moistening.
41. Moving rolling-table,	9. Molding cigars.
42. Stationary rolling-table,	10. Mouthpieces.
43. Endwise-moving filler,	11. Packing.
44. One traveling apron,	13. Pipe-cleaners.
45. Roller,	12. Pipes and stems.
46. Two traveling aprons.	14. Plug-making.
47. Cigar-machine aprons.	15. Plugs.
48. Cigar-makers' implements—	31. Smoking-tobacco.
49. Wrapper-cutters.	22. Smoking-tubes.
20. Cigar-perforators.	16. Snuff manufacture.
51. Cigar supports and stands.	Tobacco-cutters—
52. Cigars, cigarettes, and cartridges.	33. Pivoted-knife,
6. Curing.	34. Reciprocating-knife,
55. Dressing, casing, and flavoring.	35. Rotating-knife.
	21. Tobacco-hangers.
	59. Tobacco-users' appliances.
	36. Wrappers.



# DIVISION III.

EXAMINER RICH.

CLASSES.—148, Annealing and Tempering; 96, Coating with Metal; 204, Electrochemistry; 22, Metal-Founding; 75, Metallurgy; 207, Shaping Fluid Metal.

## CLASS 148.—ANNEALING AND TEMPERING. (III.)

### Subclasses.

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| 13. Annealing apparatus—            | Cementation and case-hardening—  |
| 14. Boxes and pots,                 | 26. Gaseous,                     |
| 15. Clamps,                         | 27. Liquid.                      |
| 16. Muffles,                        | 8. Decarbonizing.                |
| 17. Ovens—                          | 34. Hardening apparatus—         |
| 18. Rotary hearths,                 | 35. Bands and wire,              |
| 19. Pits,                           | 36. Clamps.                      |
| 20. Wire and springs.               | 37. Hardening processes—         |
| 21. Annealing processes—            | 39. Molten metal,                |
| 22. Drawing temper,                 | 38. Solutions.                   |
| 23. Gas,                            | Tempering and annealing—         |
| 24. Toughening.                     | 10. Applications of electricity, |
| 40. Cementation and case-hardening— | 12. Metals other than iron.      |
| 25. Compounds,                      |                                  |

## CLASS 96.—COATING WITH METAL. (III.)

### Subclasses.

- |                            |                           |
|----------------------------|---------------------------|
| 1. Apparatus—              | Precipitating—            |
| 2. Continuous-feed,        | 6. On metals,             |
| 3. Dipping.                | 7. On non-metals.         |
| 5. Iron oxides.            | 8. Processes.             |
| 11. Pickling and swilling. | 10. Wiping and finishing. |
| 5. Pots.                   |                           |

## CLASS 204.—ELECTROCHEMISTRY. (III.)

### Subclasses.

- |                                 |   |
|---------------------------------|---|
| Batteries—                      | Electrolysis—                           |
| 49. Anodes,                     | Aqueous bath—                           |
| 50. Cathodes,                   | Cathodes—                               |
| 52. Connectors,                 | 8. Metallizing,                         |
| 51. Diaphragms,                 | 9. Chemicals—                           |
| 53. Vessels and supply devices, | 58. Alkalies and chlorin,               |
| 54. Carbon,                     | 59. Bleaching and disinfecting liquors, |
| 47. Earth,                      | 60. Chlorates,                          |
| 48. Gas,                        | 61. Dyes and pigments,                  |
| 46. Piles,                      | 10. Copper,                             |
| 33. One-fluid—                  | 11. Depolarizing and bur-nishing,       |
| 55. Iron,                       | 12. Gold,                               |
| 34. Zinc—                       | 13. Multiple,                           |
| 39. Chlorides,                  | 14. Nickel,                             |
| 37. Chromates,                  | 15. Ores,                               |
| 35. Nitrates,                   | 57. Refining metals,                    |
| 38. Oxids,                      | 16. Silver,                             |
| 36. Sulfates,                   | 17. Tin,                                |
| 40. Two-fluid—                  | 18. Zinc,                               |
| 56. Iron,                       | 28. Diaphragms,                         |
| 41. Zinc—                       | 19. Fused bath—                         |
| 45. Chromates,                  | 20. Aluminium,                          |
| 42. Nitrates,                   | 21. Sodium,                             |
| 43. Sulfates—                   | 24. Purifying liquids—                  |
| 44. Gravity,                    | 26. Alcohol,                            |
| 29. Secondary.                  | 25. Water.                              |
| 64. Electric furnaces.          | 63. Reduction.                          |
| Electrolysis—                   | 31. Synthesis—                          |
| 1. Aqueous bath—                | 62. Carbids,                            |
| 2. Alloys,                      | 32. Ozone.                              |
| 3. Aluminium,                   | 27. Tanning.                            |
| 4. Anodes,                      |   |
| 5. Apparatus,                   |   |
| 6. Cathodes—                    |   |
| 7. Cleaning,                    |   |

## CLASS 22.—METAL-FOUNDING. (III.)

(For definitions see Bulletin No. 14, p. 4.)

### Subclasses.

- |  |                                       |
|--|---------------------------------------|
| 57. Casting apparatus—                 | 9. Molding apparatus—                 |
| 65. Centrifugal,                       | 31. Assembling mold parts,            |
| 58. Composite castings and joints—     | 35. Charging-flask—                   |
| 59. Fence and net leading,             | 36. Under pressure,                   |
| 60. Ingots,                            | 10. Core-making—                      |
| 67. Compression—                       | 13. Core-boxes,                       |
| 68. Charging under pressure—           | 11. Die-expressing,                   |
| 70. Melting-pot and pump—              | 12. Rotating core-bar,                |
| 71. Heated,                            | 37. Core-setting,                     |
| 69. Pneumatic,                         | 15. Curved molds,                     |
| 72. Pneumatic,                         | 47. Drawing pattern—                  |
| 79. Metal holding and pouring—         | 48. Mold-lifting—                     |
| 81. Ladles—                            | 49. Reciprocating pattern,            |
| 84. Bottom-pour—                       | 50. Stripping—                        |
| 85. Internal-stopper,                  | 51. Compound strip-ping-link,         |
| 82. Carriers and manipulators,         | 53. Curvilinear draw,                 |
| 86. Hand,                              | 55. Lever and plate,                  |
| 83. Skimming,                          | 52. Parallel motion,                  |
| 80. Pot-charging,                      | 54. Stool,                            |
| 74. Mold-heaters,                      | 56. Vibrating,                        |
| 75. Moving-mold—                       | 32. Inverting flask—                  |
| 76. Endless-chain,                     | 33. Rock-over,                        |
| 78. Reciprocating,                     | 25. Packing and drawing—              |
| 77. Rotating-table,                    | 29. Jarring-mold and stripping,       |
| 61. Pigs—                              | 26. Mold moving against press-head,   |
| 62. Endless-chain,                     | 27. Parting surface compression—      |
| 63. Rotating-table,                    | 28. Stripping,                        |
| 64. Plants,                            | 30. Pressing and vibrating pattern,   |
| 66. Tandem,                            | 40. Packing sand—                     |
| 73. Vacuum.                            | 45. Jarring,                          |
| 94. Casting-ejectors—                  | 41. Multiple rammer,                  |
| 95. Ingot-strippers.                   | 42. Presses—                          |
| 174. Chills—                           | 43. Swinging press-head—              |
| 178. Circular—                         | 44. Reciprocating-mold,               |
| 182. Contracting,                      | 46. Press-heads and plungers,         |
| 179. Gear-teeth,                       | 16. Pipes vertical—                   |
| 181. Non-chilling rings,               | 17. Compacting pattern—               |
| 180. Rolls,                            | 18. Rotating—                         |
| 177. Heated or cooled,                 | 19. Bead-forming,                     |
| 175. Plow—                             | 20. Plants,                           |
| 176. Vents                             | 34. Removing mold,                    |
| 183. Vents.                            | 22. Rolling-pattern,                  |
| 184. Core chaplets and supports.       | 21. Rotating-table,                   |
| 165. Cores—                            | 14. Screw-threads,                    |
| 167. Chill or insert holding,          | 23. Segmental-pattern,                |
| 172. Core-bars—                        | 38. Sprue-molding,                    |
| 173. Collapsible,                      | 24. Sweeping or cutting,              |
| 168. Metal—                            | 39. Venting,                          |
| 170. Contracting,                      | 185. Molding-tools—                   |
| 169. S-trap,                           | 186. Pattern-lifters and draw-plates, |
| 166. Pipe,                             | 187. Rammers.                         |
| 171. Vents.                            | 112. Mold jackets and weights.        |
| 96. Flasks—                            | 89. Mold-material-treating apparatus. |
| 103. Chill-holding—                    | 113. Molds—                           |
| 104. Wheel,                            | 116. Composite castings and joints—   |
| 109. Clamping,                         | 121. Ingots,                          |
| 97. Dental-plate,                      | 123. Lining articles,                 |
| 100. Extensible,                       | 122. Non-metallic inserts,            |
| 108. Gate-extension,                   | 117. Pipe-joints—                     |
| 110. Guides,                           | 119. Expanding clamps,                |
| 99. Multipart,                         | 118. External bands,                  |
| 101. Pattern, core, or insert holding— | 124. Sand molds—                      |
| 102. Sash-weight,                      | 125. Insert-clamps,                   |
| 111. Sand-retaining devices,           | 120. Wheels,                          |
| 106. Separable sides or ends—          | 114. Finger-ring,                     |
| 107. Snap-flasks,                      | 136. Metal—                           |
| 105. Swinging-cope,                    | 137. Chains,                          |
| 98. Vertical-pipe.                     | 156. Clamping,                        |
| 218. Ingots—                           | 154. Ejecting,                        |
| 219. Composite.                        | 139. Ingots and pigs—                 |
| 1. Miscellaneous.                      | 141. Bottom-pour,                     |
| 87. Mold and core drying apparatus.    | 144. Double-walled,                   |
| 188. Mold and core materials—          | 140. Hollow,                          |
| 189. Coatings and linings              | 143. Horizontal,                      |
| 90. Mold and flask supports—           |                                       |
| 91. Tilting.                           |                                       |
| 88. Mold coating and lining apparatus. |                                       |

# DIVISION III.—CONTINUED.

## CLASS 22.—Continued.

Molds—	190. Processes—
Metal—	200. Casting—
142. Ingots and pigs—	211. Annealing in mold,
145. Multiple,	201. Composite article—
146. Separable sides—	203. One metal solid—
146. Clamped,	204. Heated—
147. Sink-heads and feed-	205. By original heat
ers,	206. of casting,
148. Stoppers,	207. Iron and steel—
149. Multiple,	202. Compression,
155. Runner,	202. Partly non-metallic,
151. Separable cores—	212. Cooling—
152. Single,	213. Chilling iron,
150. Sprue-separating,	209. Introducing metal—
153. Two-part,	210. By immersion,
138. Wheels,	216. Preventing piping by
129. Sand—	manipulation,
130. Multiple,	208. Tandem,
134. Sprue, gate, runner,	214. Treating with gases,
and riser,	215. Treating with solids,
135. Vents,	193. Molding—
131. With cores—	194. Core-making,
132. Circumferential,	196. Descroing pattern,
133. Vertical,	197. Green-sand—
126. Sand and metal—	199. Drawing pattern,
127. Circular chills—	198. Mold and core,
128. Wheel,	195. Pattern-making,
115. Split castings.	191. Pattern-plate and match
92. Mold-separating devices—	making,
93. Drawing core.	217. Preparation of mold ma-
157. Pattern and match plates.	terials,
158. Patterns—	192. Treating mold.
163.5. Coatings,	2. Stereotype-casting appa-
164. Composition and com-	atus—
posite,	3. Combined machines,
161. Core-forming,	4. Heating or cooling mold,
160. Insert, core, or chill sup-	5. Molds.
porting,	6. Type-casting apparatus—
159. Pipe,	7. Combined machines,
162. Sprue, gate, and runner,	8. Molds.
163. Undercutting.	

## CLASS 75.—Continued.

Roasters—	28. Spelter—
Stirrers—	153. Processes,
143. Rotary,	154. Retorts,
144. Screw,	155. Stacks.
25. Roasting and smelting	27. Treating molten iron—
hearthis.	44. Air, steam, or gases,
145. Slag—	45. Alloys,
146. Disintegrating,	46. Basic,
91. Heaters,	87. Basic linings,
147. Separators, centrifugal.	47. Granulating,
18. Solution and precipita-	48. Oxids,
tion—	49. Physic,
86. Apparatus,	50. Scrap,
67. Chlorination,	51. Vacuum.
185. Cyanids,	55. Utilizing tin-scrap—
69. Ferric salts,	56. Wet processes.
70. Parting bullion.	

## CLASS 75.—METALLURGY. (III.)

### Subclasses.

1. Alloys.	Hot-blast ovens—
2. Assaying.	53. Double-surface,
90. Blowpipes.	52. Single-surface.
3. Converters—	124. Hot-blast valves.
148. Fixed,	14. Iron and steel direct—
149. Furnace,	71. Apparatus,
188. Plants,	73. Bricks,
150. Runway,	74. Flux,
151. Sectional,	75. Gases,
152. Twyers and bottoms.	72. Retorts and hearths,
182. Crucibles.	76. Slag,
107. Cupolas—	77. Sponge.
108. Drop-bottoms,	15. Lead.
109. Forehearthis,	127. Mechanical puddlers—
110. Water-jackets,	128. Rotary hearths,
111. Wind-chests and twyers.	129. Tools.
112. Finery-fires.	130. Puddling-hearthis—
113. Fire-brick.	131. Chills and bottoms,
187. Fluxes.	132. Doors and bits.
30. Fume-arresters.	22. Quicksilver.
Furnaces—	17. Reducing and separating—
40. Blank—	58. Aluminium,
189. Soaking-pits—	57. Apparatus,
190. Covers,	62. Copper,
191. Heated,	59. Desilverizing lead,
184. Tire,	60. Desulfurizing ores,
5. Blast—	61. Disintegrating ores,
114. Charging devices—	63. Flux,
115. Bell and hopper,	64. Gold and silver,
116. Protecting walls,	85. Manganese,
97. Twyers,	66. Nickel and cobalt,
186. Crucible,	65. Ore bricks,
180. Forge—	183. Sodium.
181. Twyers,	Regenerators—
84. Melting—	95. Double-surface,
119. Open-hearth,	94. Single-surface.
19. Pigment,	Roasters—
Reverberatory—	133. Blasting,
121. Heating air,	134. Hearthis—
122. Necks and chimneys,	135. Rotary,
123. Water-walls and roofs,	136. Kilns,
196. Shields,	137. Muffles,
Tapping devices—	Revolving—
192. Iron or slag notches	138. Cylinders,
and spouts,	139. Retorts,
193. Pluggers and tapping-	140. Shaft-and-shelf,
bars,	Stirrers—
194. Runways,	141. Endless-chain,
195. Siphons and dippers.	142. Reciprocating,

## CLASS 207.—SHAPING FLUID METAL. (III.)

### Subclasses.

8. Granulating.	Shaping, by dies—
1. Shaping.	3. Tubes—
Shaping, by dies—	4. Compound,
2. Bars and plates.	5. Curved.
6. Covering wire,	7. Shaping, by rolls.

# DIVISION IV.

## EXAMINER POND.

CLASSES.—14, Bridges; 193, Conveyers; 212, Cranes and Derricks; 37, Excavating; 57, Hoisting; 61, Hydraulic Engineering; 214, Loading and Unloading; 189, Metallic Building Structures.

### CLASS 14.—BRIDGES. (iv.)

(For definitions see Bulletin No. 19, p. 16.)

#### Subclasses.

- |                               |                                       |
|-------------------------------|---------------------------------------|
| 24. Arch—                     | Draw—                                 |
| 26. Abutments and anchorages, | 43. Horizontally-sliding—             |
| 25. Compound.                 | 44. Boat-operated,                    |
| Combination—                  | 45. Lazy-tongs,                       |
| 2. Truss and arch.            | 42. Lift,                             |
| 74. Coverings.                | 46. Locking devices,                  |
| 31. Draw—                     | 49. Signals,                          |
| 47. Aprons,                   | 32. Swing—                            |
| Basecule—                     | 34. Boat-operated,                    |
| 36. Fixed-pivot—              | 35. End supports and locking devices, |
| 37. Hinged sections,          | 33. Hand or motor operated.           |
| 38. Rack-and-pinion,          | 27. Floating—                         |
| 41. Locking devices,          | 28. Adjustable height,                |
| 39. Non-pivoted—              | 29. Draw—                             |
| 40. Rack-and-pinion,          | 30. Locking.                          |
| 48. Buffers,                  | 73. Floors.                           |
| 50. Gates—                    | Gangways—                             |
| Bridge-operated—              | 70. Endless conveyer,                 |
| Displacement—                 | 71. One end attached,                 |
| 54. Horizontally - sliding—   | 72. Unattached.                       |
| 55. Locking,                  | 17. Girder.                           |
| 56. Horizontally-swinging—    | 1. Miscellaneous.                     |
| 57. Locking,                  | 75. Piers—                            |
| 58. Vertically-sliding—       | 76. Fenders,                          |
| 59. Locking,                  | 77. Processes.                        |
| 60. Vertically - swinging—    | 18. Suspension—                       |
| 61. Locking,                  | 22. Cables and cable-clamps,          |
| Shaft-rotation—               | 19. Compound system,                  |
| 62. Horizontally - sliding—   | 23. Constructive apparatus,           |
| 63. Locking,                  | 20. Simple system,                    |
| 64. Horizontally-swinging—    | 21. Towers and anchors.               |
| 65. Locking,                  | 3. Truss—                             |
| 66. Vertically-sliding—       | 4. Arrangement—                       |
| 67. Locking,                  | 5. Adjustable,                        |
| 68. Vertically - swinging—    | 12. Both chords curved,               |
| 69. Locking,                  | 9. Bowstring—                         |
| Hand or motor operated—       | 10. Adjustable,                       |
| 51. Horizontally - swinging,  | 7. Cantaliver—                        |
| 52. Vertically-sliding,       | 8. Suspension,                        |
| 53. Vertically-swinging,      | 6. Deck,                              |
|                               | 11. Intermediate catenary,            |
|                               | Details—                              |
|                               | 14. Connections,                      |
|                               | 15. End shoes,                        |
|                               | 16. Expansion devices,                |
|                               | 13. Structure.                        |

### CLASS 212.—CRANES AND DERRICKS. (iv.)

#### Subclasses.

- |  |  |
|--|--|
| 1. Cranes and derricks.                | 9. Rotary load-support—                        |
| 2. Rectilinearly-movable load-support— | 10. Vertically-adjustable jib,                 |
| 3. Electric,                           | 11. Motor-operated—                            |
| 4. Hydraulic,                          | 12. Vertically-adjustable jib.                 |
| 8. Load-lifting devices,               | 13. Rotary rectilinearly-movable load-support. |
| 5. Longitudinal-shaft driver,          | 14. Stationary load-support—                   |
| 6. Stationary motor,                   | 15. Jib.                                       |
| 7. Traveling motor.                    |  |

### CLASS 37.—EXCAVATING. (iv.)

#### Subclasses.

- |                                |                            |
|--------------------------------|----------------------------|
| 11. Diggers.                   | Excavators—                |
| Dredgers—                      | 17. Wheel—                 |
| 18. Anchoring,                 | 28. And belt,              |
| 14. Clamshell—                 | 29. And carrier.           |
| 30. Buckets,                   | 50. Machine-picks.         |
| 13. Scouring—                  | 51. Mining systems.        |
| 36. Hydraulic.                 | 43. Miscellaneous.         |
| Excavators—                    | 39. Road beds and grades.  |
| 24. Chain and bucket—          | 40. Scoops—                |
| 23. Buckets,                   | 41. Railway side.          |
| 16. Dipper,                    | 5. Scrapers—               |
| 9. Hydraulic—                  | 19. Distant-power,         |
| 46. Pipe-supports,             | 22. Railway side,          |
| 47. Rotary head,               | 42. Sledged,               |
| 44. Steam vacuum,              | 7. Wheeled—                |
| 45. Suction-pipe mouth-pieces, | 49. Annular blade-carrier. |
| 25. Plow and carrier—          | 6. Self-loading carts—     |
| 48. Slide-delivery plow,       | 32. Carrier,               |
| 10. Rammers,                   | 33. Scoop,                 |
| 26. Screw—                     | 34. Wheel.                 |
| 27. And carrier,               | 35. Snow-road machines.    |
|                                | 20. Treating quicksands.   |

### CLASS 57.—HOISTING. (iv.)

#### Subclasses.

- |                              |   |
|------------------------------|---|
| 107. Bale and box hooks.     | 126. Lewises.   |
| 2. Barrel-rollers.           | Lifters—  |
| 120. Belt-stretchers—        | 109. Barrel and box,                                    |
| 121. Rack-bar and pinion,    | 110. Picture,   |
| 122. Ratchet-bar and lever,  | 111. Spittoon,  |
| 123. Screw,                  | 112. Spool,   |
| 124. Windlass.               | 113. Store-goods.                                       |
| 34. Block and tackle—        | 15. Lifting-jacks—                                      |
| 5. Differential pulleys.     | 97. Bar and cam-lever,                                  |
| 22. Capstans and windlasses— | 118. Heads,   |
| 82. Capstans,                | 43. Lever,  |
| 83. Drum and clutch,         | 98. Lever, bar, and clutch-loop,                        |
| 84. Hand-crank operated,     | 99. Lever, bar, and double-acting pawls,                |
| 85. Lever-operated,          | 100. Lever, bar, and pawl,                              |
| 86. Steam-winch,             | 101. Lever and lifting-bar,                             |
| 87. Sweep-operated,          | 125. Pushers,   |
| 88. Wildcats,                | 102. Rack-and-pinion,                                   |
| 89. Windlass with capstan.   | 119. Rim-engaging devices,                              |
| 37. Chutes—                  | 44. Screw.  |
| 114. Counterweighted,        | 116. Raising and lowering, automatic check and release. |
| 115. Equalizers.             | 18. Skids.  |
| 117. Floor-jacks.            | 53. Stackers.   |
| 9. Grapples.                 | 19. Stump-extractors—                                   |
| Hay-forks—                   | 103. Drum,  |
| 39. Corkscrew,               | 104. Lever,   |
| 40. Grapple,                 | 105. Lever-and-drum,                                    |
| 41. Harpoon,                 | 106. Screw.   |
| 42. Tilting.                 | 79. Wagon-raisers.                                      |
| 11. Hay-slings.              |   |
| 13. Hoisting-buckets.        |   |
| 127. Hoisting-hooks—         |   |
| 128. Releasing.              |   |

### CLASS 193.—CONVEYERS. (iv.)

#### Subclasses.

- |                                   |  |
|-----------------------------------|--|
| 1. Conveyers.                     | 11. Reciprocating.                       |
| 2. Endless—                       | 12. Retransfer and weighing.             |
| 3. Adjustable leg,                | 13. Screw.                               |
| 4. Belt—                          | 22. Spouts.                              |
| 24. Feeders,                      | 20. Storehouse.                          |
| 23. Guides,                       | 14. Thresher attachments—                |
| 25. Trippers,                     | 15. Foldable,                            |
| 5. Boot,                          | 16. Laterally and vertically adjustable, |
| 6. Bucket,                        | 17. Oscillatory,                         |
| 7. Bucket, with traction-rollers, | 18. Vertically-adjustable.               |
| 8. Flight,                        | 19. Trimmers.                            |
| 9. Hook.                          |  |
| 10. Pneumatic—                    |  |
| 21. Stackers.                     |  |



# DIVISION IV.—CONTINUED.

## CLASS 61.—HYDRAULIC ENGINEERING. (iv.)

### Subclasses.

1. Aqueducts.
19. Breakwaters.
2. Cable-laying.
3. Caissons—
20. Ship.
4. Canals—
28. Gate-valves.
21. Lock-gates—
27. Bear-trap.
5. Chutes—
33. Screens.
34. Water-power.
23. Cribbing.
24. Dams and levees—
35. Cores.
36. Mattresses.
- Dams—
22. Coffers.
25. Sectional.
7. Diving-armor.
8. Docks—
18. Lifting.
9. Drains.
26. Forming and preserving channels.
32. Harbors—
54. Fortifications and defenses—
55. Turrets.

29. Jetties, sectional.
11. Marine ways.
13. Pile-drivers—
37. Jigs.
38. Monkey.
39. Piston.
41. Sinking.
40. Swinging-hammer.
- Piles—
42. Metallic.
43. Protected.
52. Sheet-piling.
30. Protecting shores.
- Tide-powers—
49. Accumulators.
51. Non-pivoted float.
50. Pivoted float.
16. Tunnels—
44. Excavators.
45. Shields.
- Water-gates—
46. Sliding.
47. Swinging.
31. Wharves—
56. Gates.

## CLASS 189.—METALLIC BUILDING STRUCTURES. (iv.)

(For definitions see Bulletin No. 21, p. 9.)

### Subclasses.

1. Buildings—
3. Bins.
4. Greenhouses.
5. Jails—
- Doors—
7. Bolt-work—
8. With indicators.
9. Gratings—
10. Connections.
6. Rotary.
2. Portable.
38. Columns—
42. Caps and bases.
39. Compound.
41. Shapes.
40. Wood and metal.
46. Doors—
53. Panels.
51. Sectional.
52. Theater-curtains.
- Thermal control—
47. Horizontally-sliding.
49. Horizontally-swinging.
48. Vertically-sliding.
50. Vertically-swinging.
22. Electric-wire supports—
23. Telegraph-poles—
28. Bases—
29. Anchored—
30. Augers.
31. Expanding.
24. Compound.
33. Cross-arms.
27. Insulated parts.
25. Multiple supports.
32. Protectors.
26. Sectional.
80. Fire-shields—
81. Collapsible.
37. Girders.
- Grilles—
82. Composite.
83. Integral.
84. Securing devices.
90. Land-anchors—
91. Augers.
92. Expanding.
85. Metal sheathing—
86. Overlapping ends—
87. Cornice.
88. Securing devices—
89. Cornice.

11. Portable towers.
54. Shutters—
55. Awnings.
59. Horizontally-sliding.
61. Registering-slide.
56. Roll—
57. Operating devices.
58. Thermal control.
- Slats—
63. Fixed.
62. Pivoted.
60. Vertically-sliding.
12. Skeleton towers—
13. Arrangement—
16. Dericks.
14. Elevating.
17. Tanks.
15. Tilting.
18. Windmills.
- Details—
20. Brace adjustments.
21. Caps and bases.
19. Structure.
43. Stairs—
44. Spiral.
34. Structural units—
35. Clips or fasteners.
36. Joints and connections.
45. Thermally-controlled devices.
64. Windows—
66. Double-movement—
67. Sliding-pivot.
68. Swinging-frame.
75. Frames.
79. Guards.
76. Sash—
77. Pane supports and fastenings—
- Removable.
78. Swinging-sash—
70. Laterally-sliding weather-strips.
71. Thermal control.
72. Vertically-sliding sash—
73. Movable or removable guards.
74. Thermal control.
65. Weatherproofing.

## CLASS 214.—LOADING AND UNLOADING. (iv.)

### Subclasses.

14. Elevated carriers—
15. Draft-sustaining.
22. Fall-rope carriers.
16. Lever-lock.
17. Non-lowering support.
18. Ratchet-lock.
19. Rope-catch.
20. Sheave-frame catch.
1. Loading and unloading—
23. Furnace-charging.
2. Hay.
3. Hoist and dump.
4. Hoist, raised track, and dump.

- Loading and unloading—
5. Load-binders.
6. Pilers.
7. Raised track.
8. Raised track, track-end dump.
9. Raised track, track-end dump, tilting track-section.
13. Scoop, hoist, carry, and dump.
10. Shoveling devices.
11. Tilting platform.
12. Vertical hoist and dump.

# DIVISION V.

## EXAMINER LANE.

CLASSES.—11, Bookbinding; 56, Harvesters; 63, Jewelry; 84, Music.

### CLASS 11.—BOOKBINDING. (v.)

#### Subclasses.

- |                                    |                                 |
|------------------------------------|---------------------------------|
| 13. Bank-notes, checks, and bonds. | 18. Covers—                     |
| 16. Binding.                       | 35. Removable.                  |
| 2. Binding-machines—               | 7. Indexing—                    |
| 33. Pamphlet-coverers,             | 27. Cutting and printing.       |
| 24. Rounding and backing,          | 19. Leaves.                     |
| 25. Signature-gatherers.           | 20. Leaves and covers.          |
| 17. Books and binding.             | 14. Postage and revenue stamps. |
| 3. Books and covers—               | 15. Tickets.                    |
| 26. Cutting attachments.           | 11. Writing-tablets—            |
| 4. Book-cover protectors.          | 22. Continuous—                 |
| 12. Book-leaf holders and marks.   | 36. Manifolding,                |
|                                    | 23. Manifolding.                |

### CLASS 56.—HARVESTERS. (v.)

#### Subclasses.

- |                                       |  |
|---------------------------------------|--|
| 1. Bean-harvesters.                   | Hay-loaders—                               |
| Binders—                              | 62. Intermittent,                          |
| 35. Compressors,                      | 63. Lifting-reels,                         |
| 36. Grain-adjusters,                  | 64. Walking-rakes.                         |
| 37. Sheaf-carriers—                   | 100. Headers.                              |
| 120. Automatic dump,                  | 16. Hedge-trimmers.                        |
| Shock-formers—                        | 17. Hemp and flax harvesters.              |
| Automatic—                            | Horse-rakes—                               |
| 122. Self-binding,                    | 65. Draft-dumpers,                         |
| 123. Hand.                            | 66. Drags,                                 |
| 134. Broom-corn harvesters—           | 67. Hand-dumpers,                          |
| 135. Tablers.                         | 68. Hay-cockers,                           |
| 128. Bunchers and windrowers.         | 69. Rake-teeth,                            |
| Cane-harvesters—                      | 115. Side-delivery.                        |
| Stalk-cutters—                        | 19. Lawn-mowers—                           |
| 133. Strippers,                       | 114. Grass-catchers.                       |
| 132. Toppers.                         | 20. Manure-forks.                          |
| 2. Clover-harvesters.                 | 33. Miscellaneous.                         |
| 3. Combined rakes and tedders.        | Mowers—                                    |
| Corn-harvesters—                      | 70. Anomalies,                             |
| 130. Cutting apparatus,               | 72. Center-cut,                            |
| 119. Self-binders,                    | 136. Cutter-bar alinement,                 |
| 103. Stalk-cutters—                   | 73. Front-cut, one-wheel,                  |
| Droppers—                             | 74. Front-cut, two wheels,                 |
| 104. Crane,                           | 76. Rear-cut, one-wheel,                   |
| 105. Direct-tilting,                  | 77. Rear-cut, two wheels,                  |
| 106. Ejector,                         | 75. Reciprocating-gear,                    |
| 107. Endless-apron,                   | 78. Thrust-cut.                            |
| 108. Horizontally moving and tilting, | 32. Platform adjustments.                  |
| 109. Sliding-bottom,                  | 22. Reels.                                 |
| 110. Strippers,                       | Revolving horse-rakes—                     |
| Strippers—                            | 80. Flop-over,                             |
| 111. Comb,                            | 81. Wheel.                                 |
| 112. Knife,                           | 27. Scythes and cradles.                   |
| 113. Roller,                          | 24. Seats.                                 |
| 131. Toppers.                         | 124. Self-binders—                         |
| 5. Corn-shockers.                     | 126. Binders only—                         |
| 6. Cotton-harvesters—                 | 127. Cord-knotting,                        |
| 117. Pneumatic.                       | 82. Clips and prepared bands,              |
| 118. Rotating picker-stems.           | 83. Cord-knotters,                         |
| Cutting apparatus—                    | 125. Cord-knotting,                        |
| 42. Endless,                          | 85. Gleaners and binders.                  |
| 129. Grain-lifters,                   | 86. Tension and take-up devices,           |
| 43. Guard-fingers and finger-bars,    | 87. Twisters and tuckers,                  |
| 44. Reciprocating,                    | 88. Wire-twisters.                         |
| 45. Rotary,                           | Self-rakers—                               |
| 46. Vibrating.                        | 80. Endless carriers,                      |
| Droppers—                             | 90. Gaveling-tongs,                        |
| 47. Direct-tilting,                   | 91. Platform-movement,                     |
| 49. Miscellaneous,                    | 92. Reciprocating, horizontal curvilinear, |
| 48. Opening and closing,              | 93. Reciprocating, horizontal rectilinear, |
| 50. Side-delivery,                    | 96. Rotary, horizontal axis,               |
| 51. Swinging and tilting.             | 94. Rotary, vertical axis, switch,         |
| 99. Fruit-gatherers.                  | 95. Rotary, vertical axis, no switch,      |
| 9. Gearing.                           | 98. Traveling, horizontal irregular path,  |
| 31. Grain wheels and casters.         | 97. Traveling, vertical irregular path.    |
| Hand-binders—                         | 28. Tedders.                               |
| 52. Attachments,                      | 29. Threshers.                             |
| 53. Elevated delivery, rear,          | 30. Track clearers and dividers.           |
| 54. Elevated delivery, side,          |  |
| 55. Flat delivery,                    |  |
| 56. Manual traction.                  |  |
| 12. Hand-rakers.                      |  |
| Hay-loaders—                          |  |
| 61. Endless belts,                    |  |

### CLASS 63.—JEWELRY. (v.)

#### Subclasses.

- |   |                             |
|---|-----------------------------|
| 1. Bracelets.                               | 7. Ornamental chains.       |
| 2. Brooches.                                | 10. Processes.              |
| 4. Ear-rings.                               | 13. Safety watch-guards.    |
| 5. Finger-rings.                            | 12. Scarf-pins.             |
| 8. Gem-setting.                             | 9. Watch-chain attachments. |
| 6. Lockets.                                 |                             |
| 11. Metal stock and ornamental wire fabric. |                             |

### CLASS 84.—MUSIC. (v.)

#### Subclasses.

- |                             |                                |
|-----------------------------|--------------------------------|
| 1. Accordions.              | Automatic instruments—         |
| 82. Autoharps.              | 215. Stringed—                 |
| Automatic instruments—      | 216. Cylinder,                 |
| Details—                    | 217. Disk,                     |
| 159. Cases,                 | 218. Electric—                 |
| 160. Expression devices,    | 219. Cylinder-control,         |
| 161. Selectors—             | Mechanical—                    |
| 162. Note-sheets—           | 220. With controller—          |
| 163. Projections,           | 221. Cylinder,                 |
| 164. Note-sheet rolls,      | 222. Pneumatic,                |
| 165. Trackers,              | 223. Pneumatic—                |
| 166. Winding and rewinding, | 224. Cylinder-control,         |
| 167. Wind devices—          | 225. Self-setting,             |
| 168. Expression,            | Pianos—                        |
| 169. Pedals,                | 226. Cylinder,                 |
| 170. General structure—     | 227. Electric,                 |
| 171. Cylinder,              | 228. Electropneumatic,         |
| 172. Disk—                  | Mechanical—                    |
| 173. Self-setting,          | 230. With controller—          |
| 174. Electric,              | 231. Electric,                 |
| Mechanical—                 | 232. Pneumatic,                |
| 175. With controller—       | 233. Pneumatic—                |
| 176. Electric,              | 234. Cylinder-control,         |
| 177. Pneumatic,             | 235. Self-setting,             |
| 178. Pneumatic—             | 236. Wind—                     |
| 179. Cylinder-control,      | 237. Cylinder,                 |
| 180. Self-setting,          | 238. Disk,                     |
| 181. Keyboard-players—      | Mechanical—                    |
| 182. Cases, coupling,       | 239. Pneumatic control,        |
| 183. Cylinder,              | 240. Organs—                   |
| 184. Disk,                  | 241. Cylinder,                 |
| 185. Electric,              | 242. Disk,                     |
| 186. Mechanical—            | 243. Electropneumatic,         |
| 187. Disk-control,          | Mechanical—                    |
| 188. Electric control—      | 244. With controller—          |
| 189. Cylinder,              | 245. Pneumatic,                |
| 190. Pneumatic control,     | 246. Pneumatic,                |
| 191. Pneumatic—             | 247. Organettes—               |
| 192. Cylinder-control,      | 248. Cylinder,                 |
| 193. Orchestrions—          | 249. Disk.                     |
| 194. Disk-control,          | 53. Auxiliary strings.         |
| 195. Electropneumatic,      | 120. Banjo-bridges.            |
| Mechanical—                 | 121. Banjos—                   |
| 196. Cylinder-control,      | 122. Mutes,                    |
| 197. Pneumatic control,     | 123. Necks,                    |
| 198. Pneumatic,             | 124. Resonators.               |
| 199. Percussion—            | 6. Castanets.                  |
| 200. Cylinder,              | 85. Charts—                    |
| 201. Disk,                  | 86. Harmony and transposition. |
| 202. Electric—              | 7. Clarinets and flutes.       |
| 203. Disk-control,          | 55. Combined organ and piano.  |
| Mechanical—                 | 125. Cornet-mutes.             |
| 204. Cylinder-control,      | 8. Cornets and trumpets.       |
| 205. Pneumatic control,     | 9. Couplers—                   |
| 206. Pneumatic—             | 126. Pneumatic.                |
| 207. Cylinder-control,      | 10. Drums—                     |
| 208. Spurs and picks—       | 127. Snare.                    |
| 209. Cylinder,              | 81. Electric actions—          |
| 210. Disk—                  | 128. Couplers,                 |
| 211. Self-setting,          | 131. Sostenuuto.               |
| Mechanical—                 | 151. Enharmonic devices.       |
| 212. With controller—       | 11. Exercising devices—        |
| 213. Disk,                  | 91. Hand attachments,          |
| 214. Pneumatic,             | 92. Keyboard,                  |



# DIVISION V.—CONTINUED.

## CLASS 84.—Continued.

Exercising devices—	Piano—
93. Keyboard attachments.	Actions—
94. Vocal.	102. Frames,
87. Finger-boards.	103. Hammers,
32. Guitar-bridges.	60. Pedal,
33. Guitars—	104. Plectrum,
34. Capo-tasto.	138. Agraffes,
13. Harmonicas—	27. Attachments,
88. Supports.	139. Bridges,
12. Harmonic attachments.	140. Capo-tasto bars,
56. Harmonic dampers—	52. Cases—
83. Violin.	118. Desks,
14. Harps.	119. Fall-boards,
48. Indicators—	141. Knockdown,
50. Keyboard attachments.	148. Lid-props,
15. Insulators.	149. Swells,
58. Key-holding devices.	28. Frames,
16. Keys and keyboards—	29. Legs,
96. Touch-regulators.	30. Sounding-boards,
49. Knee-swells.	40. Stringing,
17. Leaf-turners—	144. String-plates,
35. Spring and gravity.	67. Tuning-pins—
36. Mandolin-bridges.	105. Coupling-clamp,
37. Mandolins.	106. Direct-pull,
79. Monthpieces.	107. Lever,
89. Musical blocks.	108. Presser-deflectors,
18. Notation.	109. Push-rod and carrier,
Organ—	110. Worm-gear.
19. Actions—	25. Pianos—
95. Electropneumatic,	142. Forte devices,
20. Pneumatic,	70. Sostenuito,
56. Valves and valve-seats,	143. Tone-modifiers,
50. Bellows,	31. Without strings.
21. Cases,	46. Piano-violins.
22. Pipes,	68. Recording attachments.
59. Stop-actions—	33. Reeds.
54. Combination,	34. Reed-boards.
23. Swells,	69. Solo attachments.
47. Wind-chests.	146. Tailpieces—
Organs—	147. Reel.
90. Pedal-bass,	41. Transposers.
32. Pipe.	42. Tremolos.
35. Reed—	43. Tuning instruments.
36. Attachments for,	Violin—
11. Folding,	72. Bows,
12. With pipes,	73. Bridges,
38. Steam.	74. Chin-rests,
24. Pedals—	75. Dampers and mutes,
97. Auxiliary,	78. Tuning-pegs.
98. Guards,	44. Violins—
99. Locks.	76. Practice,
61. Pianissimo devices.	115. Supports.
Piano—	80. Zithers—
26. Actions—	116. Keyed,
00. Dampers,	117. Picks.
01. Flanges,	

# DIVISION VI.

## EXAMINER SEAMAN.

CLASSES.—8, Bleaching and Dyeing; 23, Chemicals; 52, Explosives; 71, Fertilizers; 167, Medicines; 99, Preserving; 127, Sugar and Salt.

### CLASS 8.—BLEACHING AND DYEING. (VI.)

#### Subclasses.

- |                                |                                      |
|--------------------------------|--------------------------------------|
| 16. Apron vats and stretchers. | 19. Open vats.                       |
| 2. Bleaching.                  | 17. Perforated rolls and spray-jets. |
| 1. Carbon dyes.                | 7. Press-dyeing.                     |
| 18. Close vats.                | 8. Renovating dress.                 |
| 5. Dyeing processes.           | 15. Steam and bleach chests.         |
| 6. Dyes.                       | 12. Wool-cleaning.                   |
| 20. Mercerizing.               |                                      |
| 13. Mordants.                  |                                      |

### CLASS 167.—MEDICINES. (VI.)

#### Subclasses.

- |                          |                          |
|--------------------------|--------------------------|
| 2. Capsules.             | 7. Internal remedies.    |
| 3. Disinfectants—        | 8. Plasters.             |
| 12. Candles and holders. | 11. Tobacco substitutes. |
| 4. Extracts.             | 9. Topical remedies.     |
| 5. Hair dyes and tonics. | 10. Veterinary.          |
| 6. Insecticides.         |                          |

### CLASS 23.—CHEMICALS. (VI.)

#### Subclasses.

- |  |                        |
|--|------------------------|
| 1. Acids, mineral.   | 11. Packing chemicals. |
| 21. Ammonia.   | 13. Salines.           |
| 3. Apparatus.  | 22. Soda and potash.   |
| 24. Carbon compounds.  | 27. Vinegar.           |
| 5. Fire-extinguishing compounds.   |                        |
| 10. Metalloids, embraces non-illuminating gases, sulfur, and phosphorus. |                        |

### CLASS 99.—PRESERVING. (VI.)

#### Subclasses.

- |                      |                      |
|----------------------|----------------------|
| 1. Antiseptics.      | 11. Food compounds.  |
| 2. Apparatus.        | 9. Fumigation.       |
| 5. Desiccation.      | 10. Panification.    |
| 6. Egg-testers.      | 12. Wood saturation. |
| 8. Exclusion of air. |                      |

### CLASS 52.—EXPLOSIVES. (VI.)

#### Subclasses.

- |                     |                           |
|---------------------|---------------------------|
| 1. Blasting-powder. | 5. Matches.               |
| 2. Fulminates.      | 3. Nitro compounds.       |
| 4. Gunpowder.       | 6. Pyrotechnic compounds. |

### CLASS 127.—SUGAR AND SALT. (VI.)

#### Subclasses.

- |                          |                            |
|--------------------------|----------------------------|
| 1. Bleaching cane-juice. | 10. Glucose.               |
| 2. Bone-black.           | 19. Graining and draining. |
| 3. Centrifugal machines— | 11. Mixers.                |
| 21. Honey-extractors.    | 12. Molds and carriages.   |
| 20. Liquid-separators.   | 14. Refining salt.         |
| 22. Testers.             | 15. Refining sugar.        |
| 4. Confectionery.        | 16. Salt-making.           |
| 6. Cube sugar.           | 23. Starch.                |
| 7. Defecating.           | 17. Sugar-making.          |
| 8. Diffusion apparatus.  | 18. Vacuum-pans.           |
| 9. Evaporating-pans.     |                            |

### CLASS 71.—FERTILIZERS. (VI.)

#### Subclasses.

- |                  |                           |
|------------------|---------------------------|
| 1. Apparatus.    | 7. Phosphates.            |
| 9. Compositions. | 8. Sewage and night-soil. |
| 6. Organic.      |                           |

# DIVISION VII.

EXAMINER TOWNSEND.

CLASSES.—46, Games and Toys; 185, Mechanical Motors; 88, Optics; 93, Paper Manufactures; 208, Velocipedes.

## CLASS 46.—GAMES AND TOYS. (VII.)

### Subclasses.

- |                                |                          |
|--------------------------------|--------------------------|
| 71. Amusement-houses.          | 65. Game-pieces.         |
| 4. Balls and bats.             | 22. Hobby-horses.        |
| 43. Base-ball.                 | 23. Kites.               |
| 6. Billiard appliances—        | 24. Lawn-tennis.         |
| 7. Balls,                      | 25. Playing-cards.       |
| 8. Chalk-cups,                 | 41. Puzzles and magic.   |
| 9. Cues,                       | 27. Roundabouts.         |
| 10. Cue-tip fasteners,         | 53. Skaters' appliances. |
| 11. Cushions,                  | 50. Skates—              |
| 12. Tables,                    | 51. Roller.              |
| 13. Table-levelers.            | 52. Skate-wheels.        |
| 66. Bowling-alleys—            | 30. Skipping-ropes.      |
| 54. Pin-setting apparatus.     | 67. Snow-shoes.          |
| 14. Buzzes and whirligigs.     | 31. Soap-bubble pipes.   |
| 55. Card-game accessories.     | 32. Spinning-tops.       |
| 56. Chance devices—            | 33. Stilts.              |
| 57. Ball.                      | 70. Theater appliances.  |
| 15. Croquet.                   | 35. Toy building-blocks. |
| 68. Dumb-bells and clubs.      | 36. Toy money-boxes.     |
| 58. Duplicate-whist apparatus. | 37. Toys—                |
| 69. Exercising-machines.       | 49. Electric,            |
| Game apparatus—                | 40. Figure—              |
| 59. Aerial projectiles—        | 45. Wheeled,             |
| 60. Peg and pocket,            | 46. Sounding—            |
| 61. Surface projectiles—       | 47. Wheeled,             |
| 62. Longitudinal.              | 48. Wheeled.             |
| 21. Game-boards—               | 38. Trundles and hoops.  |
| 63. Chance-controlled,         |                          |
| 64. Checkered surfaces.        |                          |

## CLASS 185.—MECHANICAL MOTORS. (VII.)

### Subclasses.

- |                    |                         |
|--------------------|-------------------------|
| 1. Horse-powers—   | Manual—                 |
| 8. Drivers,        | 13. Miscellaneous,      |
| 9. Drums,          | 12. Treadles.           |
| 2. Equalizers,     | 5. Miscellaneous.       |
| 10. Gears,         | 14. Oscillating weight— |
| 3. Treads.         | 15. Wave.               |
| Manual—            | 6. Spring.              |
| 11. Hand-operated, | 7. Weight.              |

## CLASS 88.—OPTICS. (VII.)

(For definitions see Bulletin No. 5, p. 8.)

### Subclasses.

- |  |                                   |
|--|-----------------------------------|
| 2. Astronomical and surveying instruments— | Kinetoscopes—                     |
| 9. Altitude—                               | 19. Separate leaves.              |
| 11. Artificial horizons,                   | 57. Lenses.                       |
| 10. Sextants,                              | 56. Lens-testers.                 |
| 3. Distance—                               | 39. Microscopes—                  |
| 6. Double-observation—                     | 40. Accessories.                  |
| 7. External-base,                          | 1. Miscellaneous.                 |
| 4. Electric,                               | 20. Optometers—                   |
| 5. Remote-base,                            | 21. Face-gages,                   |
| 12. Leveling—                              | 22. Multiple-lens.                |
| 13. Gradient,                              | 23. Photometers.                  |
| 8. Solar.                                  | 24. Projecting apparatus—         |
| Building-lights—                           | 25. Heliostats.                   |
| 58. Canopy,                                | 26. Magic lanterns—               |
| 59. Vault,                                 | 27. Rotary slide carrier,         |
| 60. Window.                                | 28. View-changing devices.        |
| 41. Eyeglasses and spectacles—             | 66. Rods and targets.             |
| 43. Bridges—                               | 29. Stereoscopes—                 |
| 44. Folding,                               | 30. Album,                        |
| 45. Spring—                                | 31. View-changing.                |
| 46. Bar,                                   | 32. Telescopes—                   |
| 42. Connections,                           | 34. Field and opera glasses—      |
| 54. Lenses,                                | 35. Folding and collapsible,      |
| 47. Lens-mounts,                           | 36. Supports—                     |
| 55. Nose-guards,                           | 37. Focusing,                     |
| 48. Nose-grips—                            | 33. Prismatic,                    |
| 49. Adjustable—                            | 38. Reflecting attachments.       |
| 50. Automatic,                             | 14. Testing instruments.          |
| 51. Supports,                              | 61. Tripods—                      |
| 52. Temples—                               | 62. Cane type,                    |
| 53. Connections.                           | 63. Horizontal adjustments,       |
| 15. Kaleidoscopes.                         | 64. Instrument-attaching devices, |
| 16. Kinetoscopes—                          | 65. Leveling adjustments.         |
| 17. Continuous-film—                       | 67. Window-reflectors.            |
| 18. Intermittent-feed,                     |                                   |

## CLASS 93.—PAPER MANUFACTURES. (VII.)

(For definitions see Supplement No. 2, p. 2539.)

### Subclasses.

- |   |                                      |
|---|--------------------------------------|
| Bag-machines—                                     | Box-machines—                        |
| 13. Central-fold,                                 | 53. Refolders,                       |
| 27. Closers,                                      | 55. Setting up,                      |
| 26. Cutters and closers,                          | 43. Setting up and covering,         |
| 25. Cutters and openers,                          | 56. Staying.                         |
| 21. Cutters, openers, and closers,                | 93. Bunching and banding.            |
| 33. Cutting,                                      | Envelop-machines—                    |
| 31. Hand bottom-folders,                          | 74. Drying—                          |
| tables,   | 75. Chain-discharging,               |
| 35. Methods,                                      | 61. Miscellaneous,                   |
| 8. Miscellaneous,                                 | 73. Printing and stamping,           |
| 28. Openers—                                      | Reciprocating—                       |
| 29. Roll,   | 71. Carrying mechanism,              |
| Side,   | 70. Creasing mechanism,              |
| 22. Openers and closers—                          | 72. Ejecting mechanism,              |
| Opener, roll,                                     | 67. Folding,                         |
| 24. Openers, side,                                | 68. Gunning—                         |
| 11. Plate-mandrel,                                | 69. Picker-faces,                    |
| 34. Printing attachments,                         | 66. Gunning and folding,             |
| 12. Rectangular-mandrel,                          | 65. Turret,                          |
| Refolders,  | 64. Web-supply,                      |
| 9. Triangular-fold—                               | Rotary—                              |
| Blade-and-roller,                                 | 62. Blank-supply,                    |
| 10. Mandrel,                                      | 63. Web-supply,                      |
| 20. Web-formers,                                  | 76. Thread-affixers.                 |
| 19. Web formers and cutters,                      | Folding—                             |
| 18. Web formers, cutters, and closers,            | 84. Miscellaneous,                   |
| 17. Web formers, cutters, and openers,            | 85. Powder-paper machines,           |
| 14. Web formers, cutters and openers and closers— | 86. Radial-fold.                     |
| 15. Openers, roll,                                | 1. Miscellaneous.                    |
| 16. Openers, side.                                | Tag-machines—                        |
| Box-machines—                                     | 90. Eyeletting,                      |
| 37. Cell-cases—                                   | 87. Miscellaneous,                   |
| 38. Traveling-carrier, shifting-form,             | 89. Pin-ticket making,               |
| 54. Covering,                                     | 88. Pin-ticket making and attaching, |
| 58. Cutting and scoring,                          | 91. String-attaching,                |
| 44. Endless-mandrel carrier,                      | 92. Washer-attaching.                |
| 57. Fly-affixers,                                 | Tube-machines—                       |
| 49. Folding—                                      | 82. Axial-feed,                      |
| Driers,   | 81. Convolute-wind,                  |
| 50. Plunger-and-die,                              | 78. Fuse-making,                     |
| 52. Stationary folders,                           | 77. Miscellaneous,                   |
| 45. Web-supply—                                   | 83. Sizing and burnishing,           |
| Driers,   | 80. Spiral-wind,                     |
| 47. Plunger-and-die,                              | 79. Tapering-wind.                   |
| Stationary folders.                               | 94. Tubes.                           |
| 40. Folding and covering,                         | Wrapping-machines—                   |
| 39. Folding and setting up,                       | 5. Crimpers and twisters,            |
| 42. Folding and stapling,                         | 2. Miscellaneous,                    |
| 41. Folding and staying,                          | 4. Packet making and wrapping,       |
| Mandrels and dies,                                | 6. Receptacle filling and closing,   |
| 36. Miscellaneous,                                | 3. Receptacle making and filling,    |
| 60. Plaiting,                                     | 7. Traveling-carrier.                |

# DIVISION VII.—CONTINUED.

## CLASS 208.—VELOCIPEDES. (VII.)

### Subclasses.

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>11. Bearings.</li> <li>5. Bicycles—</li> <li>Header-preventers.</li> <li>Bicycle, propulsion—</li> <li>Crank and gear—</li> <li>50. Normally fixed stud-plate,</li> <li>74. Planetary,</li> <li>48. Reverting train,</li> <li>49. Rotating side shaft,</li> <li>46. Train—</li> <li>47. Internal rack,</li> <li>17. Crank and chain—</li> <li>153. Chain adjustments,</li> <li>154. Changeable-speed gear,</li> <li>18. Lever and crank,</li> <li>19. Lever, crank and gear, or chain,</li> <li>20. Lever and ratchet,</li> <li>21. Lever, ratchet and gear, or chain,</li> <li>23. Miscellaneous,</li> <li>22. Rack-and-pinion.</li> <li>13. Brakes—</li> <li>57. Back-pedaling,</li> <li>60. Band,</li> <li>58. Pneumatic,</li> <li>59. Roller.</li> <li>45. Carrier.</li> <li>145. Casings—</li> <li>146. Chain—</li> <li>147. Attached,</li> <li>148. One-piece,</li> <li>149. Radially-separable.</li> <li>24. Child's seats.</li> <li>151. Cleaner attachments—</li> <li>152. Chain.</li> <li>130. Combined handle-bar and post adjustment.</li> <li>27. Coupling-bars.</li> <li>68. Cranks and crank-shafts.</li> <li>9. Crank-clutches.</li> <li>Cranks—</li> <li>69. Variable-leverage.</li> <li>3. Dicycles.</li> <li>2. Epicycles.</li> <li>93. Frames—</li> <li>98. Crank-hangers,</li> <li>107. Depressible-seat,</li> <li>104. Drop convertible,</li> <li>96. Forks—</li> <li>97. Springs,</li> <li>105. Folding,</li> <li>102. Heads—</li> <li>103. Spring,</li> <li>95. Joints,</li> <li>106. Knockdown,</li> <li>110. Ordinary,</li> <li>111. Parallel seats,</li> <li>113. Polycycles,</li> <li>155. Pumps,</li> <li>94. Spring,</li> <li>101. Spring-axles,</li> <li>100. Spring saddle-supports,</li> <li>108. Tandem—</li> <li>109. Convertible,</li> <li>112. Trailing wheels,</li> <li>99. Yokes.</li> <li>115. Handle-bars—</li> <li>123. Automatically - collaps- ing,</li> <li>122. Automatically - detach- able,</li> <li>116. Continuous adjustable—</li> <li>Locks—</li> <li>117. Cam,</li> <li>118. Screw-and-dog,</li> <li>119. Spring,</li> <li>124. Folding,</li> <li>120. Sectional, adjustable—</li> <li>121. Simultaneously,</li> <li>125. Spring.</li> <li>126. Handles—</li> <li>127. Auxiliary,</li> </ul> | <ul style="list-style-type: none"> <li>Handles—</li> <li>128. Pneumatic,</li> <li>129. Strip.</li> <li>67. Harness.</li> <li>Holders—</li> <li>Brackets—</li> <li>86. Fixed arm or jaw,</li> <li>87. Pivoted arm or jaw,</li> <li>Racks—</li> <li>90. Frame-supports,</li> <li>88. Wheel or tire sup- ports—</li> <li>89. Tilting-shoe,</li> <li>Stands—</li> <li>91. Floor-supported,</li> <li>92. Wall-supported.</li> <li>139. Miscellaneous.</li> <li>140. Mud-guards—</li> <li>141. Wheel—</li> <li>142. Rim—</li> <li>143. Limp,</li> <li>144. Sectional.</li> <li>70. Pedals.</li> <li>Polycycles—</li> <li>42. Figure.</li> <li>Polycycles, propulsion—</li> <li>40. Axle-couplings,</li> <li>32. Crank and chain,</li> <li>Crank and gear—</li> <li>51. Planetary,</li> <li>54. Reverting train,</li> <li>55. Rotating side shaft,</li> <li>52. Train—</li> <li>53. Internal rack,</li> <li>30. Crank and pitman,</li> <li>33. Lever and crank,</li> <li>34. Lever, crank and gear, or chain,</li> <li>35. Lever and ratchet,</li> <li>36. Lever, ratchet and gear, or chain,</li> <li>38. Miscellaneous,</li> <li>37. Rack-and-pinion.</li> <li>Posts—</li> <li>131. Mechanical adjustment,</li> <li>132. Self-locking.</li> <li>Props—</li> <li>156. Fixed,</li> <li>Pivoted—</li> <li>75. One-leg—</li> <li>79. Extension hinged,</li> <li>77. Extension sliding,</li> <li>78. Lever-actuated,</li> <li>79. Spring-locked,</li> <li>80. Universal-joint,</li> <li>Two (or more) legs—</li> <li>81. Cam (or gear) spread,</li> <li>82. Lever-spread,</li> <li>83. Spring-spread,</li> <li>Sliding—</li> <li>84. One-leg,</li> <li>85. Two (or more) legs.</li> <li>138. Rests.</li> <li>41. Rowing-machines.</li> <li>15. Saddles—</li> <li>64. Pneumatic,</li> <li>65. Rigid-seat,</li> <li>66. Sectional.</li> <li>63. Saddle-clamps.</li> <li>Saddle-posts—</li> <li>62. Rigid,</li> <li>61. Spring.</li> <li>150. Shields.</li> <li>114. Steering devices.</li> <li>Steering-wheel—</li> <li>136. Automatically-gov- erned,</li> <li>137. Locking.</li> <li>26. Steps and foot-rests.</li> <li>133. Telescopic-tube clamps—</li> <li>135. Split-collar,</li> <li>134. Tubular-wedge.</li> <li>71. Toe-clips.</li> <li>1. Unicycles.</li> </ul> |
|--|---|



# DIVISION VIII.

EXAMINER JOHNSON.

CLASSES.—5, Beds; 155, Chairs; 45, Furniture; 65, Kitchen and Table Articles; 211, Store Furniture.

## CLASS 5.—BEDS. (VIII.)

### Subclasses.

- |                            |                             |
|----------------------------|-----------------------------|
| Beds—                      | Bedsteads—                  |
| 1. Air,                    | Sofa—                       |
| 5. Camp.                   | 51. Vortically-moving       |
| Bed-bottoms—               | frame.                      |
| 39. Fabrics,               | 17. Table,                  |
| 40. Fabrics and springs,   | 18. Wardrobe-bedsteads—     |
| 25. Slats,                 | 52. Center-folding,         |
| 26. Slats and springs,     | 53. End-folding,            |
| 29. Springs,               | 34. Extension,              |
| 3. Bed-clothing.           | 54. Shifting-fulcrum,       |
| 4. Bedsteads—              | 37. Single-frame,           |
| 41. Attachments,           | 38. Sliding-frame.          |
| 42. Braces,                | 22. Clothes-clamps.         |
| 8. Extension,              | 55. Corner-fastenings.      |
| 9. Folding—                | 56. Cradles—                |
| 60. Berths and bunks,      | 57. Motor-operated.         |
| 12. Invalid—               | 58. Cribs—                  |
| 43. Head-sections,         | 59. Attachments.            |
| 44. Lifters and conveyers, | 10. Hammocks—               |
| 45. Vortically-moving      | 31. Stretchers,             |
| frame,                     | 32. Supports.               |
| 16. Sofa—                  | 13. Mattresses.             |
| 46. Extension,             | 14. Mosquito-nets and cano- |
| 47. Folding-back,          | pies.                       |
| 48. Folding back and seat, | 15. Pillows.                |
| 49. Folding-seat,          | 33. Pillow-sham holders.    |
| 50. Rotary back and seat,  | 21. Springs.                |

## CLASS 155.—CHAIRS. (VIII.)

### Subclasses.

- |                               |                             |
|-------------------------------|-----------------------------|
| 44. Baby-jumpers.             | 33. Pads and feet.          |
| 45. Baby-walkers.             | Rests—                      |
| 3. Chairs—                    | 9. Foot,                    |
| 27. Adjustable backs,         | 10. Head.                   |
| 28. Adjustable backs and      | 34. School seats and desks. |
| seats,                        | Seats—                      |
| 26. Attachments,              | 2. Car,                     |
| 29. Backs and seats independ- | 5. Circus,                  |
| ently adjustable,             | 37. Reversible,             |
| 4. Bottoms,                   | 25. Spring,                 |
| 6. Convertible,               | 19. Settees.                |
| 7. Dentists',                 | 20. Sofas.                  |
| 8. Folding—                   | 22. Stools and seats—       |
| 30. Adjustable,               | 38. Duplex,                 |
| 11. Invalid,                  | 39. Pawl-and-ratchet,       |
| 12. Nursery,                  | 40. Pedestal,               |
| 13. Opera,                    | 41. Screw.                  |
| 16. Reclining,                | Stools—                     |
| 18. Rocking—                  | 42. Cane,                   |
| 31. Platform,                 | 32. Folding.                |
| 21. Step-ladder,              | 35. Swings.                 |
| 23. Surgical,                 | 43. Upholstery.             |
| 36. Swinging,                 |                             |
| 24. Tilting.                  |                             |

## CLASS 45.—FURNITURE. (VIII.)

### Subclasses.

- |                             |                         |
|-----------------------------|-------------------------|
| 1. Bookcases—               | Book and music holders— |
| 53. Adjustable shelf-parti- | 58. Bracket-supported—  |
| tions,                      | 82. Adjustable,         |
| 54. Adjustable shelves and  | 61. Leaf-holders,       |
| shelf-supports,             | 83. Leaf-rests,         |
| 55. Hanging shelves,        | 62. Music-stands—       |
| 78. Knockdown,              | 121. Portable,          |
| 79. Revolving,              | 64. Portfolio,          |
| Roller-shelves.             | Brackets—               |
| Book and music holders—     | 65. Arm-supporting—     |
| 57. Base-supported—         | 84. Adjustable,         |
| 80. Adjustable,             | 66. End-supporting—     |
| 81. Rotary,                 | 67. Adjustable,         |
| 59. Body-supported,         | 128. Pneumatic.         |
| 60. Book-stands—            | 5. Bureaus—             |
| 85. Folding,                | 88. Knockdown.          |
| 86. Leveling,               | 89. Carpet-stretchers.  |

## CLASS 45.—Continued.

- |                           |                             |
|---------------------------|-----------------------------|
| 43. Carpet stretchers and | 28. Soap-holders.           |
| tackers.                  | 41. Spittoons—              |
| 68. Covers.               | 107. Covered,               |
| 6. Desks—                 | 108. Flushing.              |
| 90. Attachments,          | 31. Tables—                 |
| 91. Lids—                 | Adjustable—                 |
| 92. Flexible,             | 109. Angularly,             |
| 69. Portable,             | 110. Angularly and verti-   |
| 93. Sectional,            | cally,                      |
| 70. Table.                | 74. Folding,                |
| 7. Drawers—               | 111. Vertically,            |
| 77. Guides,               | 75. Attachments,            |
| 94. Locking devices,      | 9. Extension—               |
| 95. Swinging,             | 112. Center,                |
| 96. Tilting.              | 113. End,                   |
| 2. File-cabinets—         | 114. Flexible-top,          |
| 3. Revolving.             | 115. Slides,                |
| 4. File-racks.            | 11. Folding—                |
| 13. Hat and coat racks—   | 116. Sectional-top,         |
| 123. Hooks—               | 122. Game,                  |
| 124. Claspings,           | 17. Kitchen,                |
| 125. Swinging-arm,        | 46. Lap,                    |
| 126. Wire—                | 47. Leaf-supports,          |
| 127. Single-piece.        | 48. Leg fastening and brac- |
| 15. Insect-guards.        | ing,                        |
| 16. Kitchen-cabinets.     | 117. Pedestals,             |
| 18. Mirrors—              | 26. Self-waiting,           |
| 87. Bracket,              | 27. Sewing-machine—         |
| 98. Hand,                 | 120. Covers,                |
| 99. Multiple,             | 129. Surgical,              |
| 100. Stand.               | 51. Wall,                   |
| 102. Packing furniture.   | 32. Towel racks and stands. |
| 71. Provision-safes—      | 52. Type-writer cabinets.   |
| 102. Knockdown,           | 33. Umbrella-stands.        |
| 103. Revolving,           | 36. Wall-protectors.        |
| 104. Window.              | 37. Wardrobes—              |
| 24. Quilting-frames.      | 118. Knockdown.             |
| 105. Screens—             | 38. Washstands—             |
| 106. Folding.             | 119. Reservoir.             |

## CLASS 65.—KITCHEN AND TABLE ARTICLES. (VIII.)

### Subclasses.

- |                        |                         |
|------------------------|-------------------------|
| 3. Cake-turners.       | 25. Fruit-lifters.      |
| 55. Casters—           | 26. Jar-lifters.        |
| 58. Rotary.            | 28. Ladles.             |
| 10. Compound tools—    | 29. Napkin-holders.     |
| 56. Gripping.          | 30. Oyster-openers.     |
| 45. Condiment-holders— | 31. Pitchers—           |
| 57. Pulverizing.       | 64. Tilting-frame.      |
| 12. Culinary.          | 32. Plate-lifters.      |
| 13. Cups—              | 65. Racks and rests.    |
| 58. Collapsible.       | 36. Scoops.             |
| 15. Dishes and plates— | 46. Stopper-extractors— |
| 59. Covered,           | 47. Hook,               |
| 60. Pivoted covers.    | 48. Screw—              |
| 16. Dish-covers—       | 49. Lever-operated,     |
| 61. Stands.            | 50. Rotary,             |
| 20. Dust-pans—         | 51. Screw-and-lever.    |
| 62. Brush attachments, | 52. Table-tongs.        |
| 63. Footpieces.        | 53. Trays—              |
| 22. Egg-cups.          | 54. Attaching devices.  |

## CLASS 211.—STORE FURNITURE. (VIII.)

### Subclasses.

- |                           |                            |
|---------------------------|----------------------------|
| 1. Bag and twine holders— | Display-racks—             |
| 2. Bag-holders,           | 22. Sample-sheet—          |
| 3. Twine-holders—         | 23. Rotary.                |
| 4. Take-up—               | 24. Display-stands.        |
| 5. Rotary.                | 28. Display-trays.         |
| 6. Bins.                  | 35. Pattern-exhibitors.    |
| 7. Cabinets—              | 36. Post-office furniture. |
| 8. Delivering,            | Sample-holders—            |
| 9. Grocers',              | 40. Box-attached.          |
| 10. Spool.                | 29. Serving apparatus—     |
| 11. Counters—             | 30. Printing attachment,   |
| 12. Attachments.          | 31. Roll-holders—          |
| 34. Display-cards.        | 32. Cutting attachment,    |
| 13. Display-forms.        | 33. Feeding attachment.    |
| 14. Display-racks—        | 25. Show-cases—            |
| 15. Adjustable-arm,       | 26. Lid-lifters.           |
| 17. Hanging,              | 27. Shelving.              |
| 16. Inclosed,             | 37. Ticket-cases—          |
| 18. Roll,                 | 38. Gravity-feed,          |
| 19. Rope,                 | 39. Spring-clasp.          |
| 20. Rotary—               |                            |
| 21. Inclosed,             |                            |

# DIVISION IX.

EXAMINER TRYON.

CLASSES.—230, Air and Gas Pumps; 169, Fire-Extinguishers; 138, Hydraulic Motors; 103, Pumps; 182, Sewerage.

## CLASS 230.—AIR AND GAS PUMPS. (IX.)

### Subclasses.

- |                                 |                              |
|---------------------------------|------------------------------|
| 35. Air-motors—                 | 17. Fluid piston—            |
| 36. Bellows,                    | 17. Tank and bell,           |
| 37. Convertible motor and pump, | 18. Tank and float,          |
| 1. Automatic fans.              | 19. Tank and hand-valve,     |
| 2. Bellows.                     | 20. Tank and overflow-valve, |
| 3. Bulb.                        | 21. Tank and pressure-valve, |
| 4. Collapsible tube.            | 22. Tank and vane,           |
| 5. Diaphragm.                   | 23. Tilting-tank.            |
| 7. Fan attachments—             | 24. Pressure-control.        |
| 8. Bellows.                     | 25. Receivers.               |
| 9. Fly-wheel,                   | 26. Sand-blowers.            |
| 10. Treadle.                    | 27. Solid piston—            |
| 11. Fan-blowers.                | 27. Rectilinear—             |
| Fluid-piston—                   | 28. Hydraulic motor,         |
| 12. Endless-channel,            | 29. Oscillating,             |
| 13. Injectors and aspirators—   | 30. Rotary—                  |
| 14. Rotary,                     | 31. Rectilinear.             |
| 15. Fall-tube,                  | 32. Systems.                 |
| 16. Reciprocating-piston,       | 33. Toilet-fans.             |
|                                 | 34. Valves and valve-gear.   |

## CLASS 103.—PUMPS. (IX.)

### Subclasses.

- |   |                                  |
|---|----------------------------------|
| 45. Accumulators.                       | Elements—                        |
| 52. Air-suction chamber.                | 66. Valves.                      |
| 53. Assembling.                         | 67. Fluid motive power—          |
| 5. Cattle.                              | 68. Fluid-transmitting.          |
| 6. Chain.                               | 69. Water-wheel.                 |
| 50. Collapsible tube.                   | 17. Hollow piston-rod—           |
| 54. Combined types.                     | 70. Double-acting—               |
| 8. Compressed-air water - elevators—    | 71. One solid piston,            |
| 84. Aerated column,                     | 72. Multiple-cylinder.           |
| 55. Hydraulic compression.              | 73. Oscillating piston.          |
| 10. Diaphragm.                          | 51. Railway-tank feeders.        |
| 56. Differential reciprocating pistons— | 29. Rams.                        |
| 57. Hollow piston-rod.                  | 44. Rotary double-piston.        |
| Elements—                               | 43. Rotary single-piston.        |
| 58. Air and vacuum chambers,            | 74. Sand-bailers.                |
| 60. Cut-off and drain devices,          | 75. Solid reciprocating piston—  |
| 59. Cylinders,                          | 76. Double-acting,               |
| 61. Miscellaneous and combined,         | 77. Multiple-cylinder—           |
| 62. Operating devices,                  | 78. Double-acting.               |
| 63. Pistons,                            | 79. Systems.                     |
| 64. Sand traps and strainers,           | 80. Valved reciprocating piston— |
| 65. Stocks, curbs, and supports,        | 81. Multiple-cylinder,           |
|   | 82. Opposing pistons.            |
|   | 83. Successive pistons.          |
|   | 35. Windlass water-elevator.     |

## CLASS 169.—FIRE-EXTINGUISHERS. (IX.)

### Subclasses.

- |                                      |                                |
|--------------------------------------|--------------------------------|
| 5. Automatic nozzles and sprinklers. | Portable—                      |
| 6. Automatic valves.                 | 15. Grenades,                  |
| 4. Car-heaters.                      | 16. Hand vessels,              |
| 7. Chemical-mixing—                  | 17. Liquid pumps and syringes, |
| 8. Automatic.                        | 18. Water-towers,              |
| 9. Chemical stream impregnating.     | 19. Wheeled.                   |
| 10. Combustion.                      | 20. Stationary systems—        |
| 11. For oil-tanks.                   | 21. Automatic,                 |
| 12. Gas-pressure supply.             | 22. Automatic valve—           |
| 13. Miscellaneous.                   | 23. Pressure-controlled,       |
| Portable—                            | 24. Chemical-mixing,           |
| 14. Automatic,                       | 25. Gas-pressure supply.       |

## CLASS 182.—SEWERAGE. (IX.)

### Subclasses.

- |  |                         |
|--|-------------------------|
| 9. Animal-stops.                           | 6. Mechanical treatment |
| 2. Cleaning.                               | 7 Systems.              |
| 3. Construction.                           | Traps—                  |
| 4. Flushing.                               | 11. Air-valves,         |
| 8. Flush-tank siphons.                     | 12. Liquid-seal—        |
| 10. Manholes, catch-basins, and cesspools. | 13. Pipe-inlet,         |
|  | 14. Valve-seal.         |

## CLASS 138.—HYDRAULIC MOTORS. (IX.)

### Subclasses.

- |                    |                                |
|--------------------|--------------------------------|
| 11. Chain.         | 2. Reciprocating.              |
| 13. For cranes.    | 3. Rotary—                     |
| 8. For elevators—  | 12. Feathering,                |
| 14. Valves,        | 18. Impact.                    |
| 15. Varying power. | Turbines—                      |
| 9. For jacks.      | 4. Bottom-supply,              |
| 10. For presses—   | 5. Side-ring supply,           |
| 16. Valves,        | 6. Top and side direct-supply. |
| 17. Varying power. | 7. Top-ring supply.            |
| 1. Oscillating.    |                                |

# DIVISION X.

EXAMINER MITCHELL.

CLASS.—21, Carriages and Wagons.

CLASS 21.—CARRIAGES AND WAGONS. (X.)

## Subclasses.

- |                             |                             |
|-----------------------------|-----------------------------|
| 80. Ambulances and stretch- | 44. Seats—                  |
| ers.                        | 45. Spring.                 |
| 2. Axle-boxes.              | 45. Shifting-rails.         |
| 4. Axle-skeins.             | 93. Short-turning gear.     |
| 5. Axles.                   | 46. Sled-brakes.            |
| 7. Bodies.                  | 47. Sled-propellers.        |
| 81. Boots and aprons.       | 48. Sleds—                  |
| 10. Brake-levers.           | 94. Hand,                   |
| 8. Brakes—                  | 95. Shifting thills,        |
| 9. Automatic,               | 96. Wheel-runners.          |
| 82. Shoes.                  | 49. Spoke-sockets.          |
| 11. Carriage-irons.         | 97. Spring-gear—            |
| 85. Chafe-irons.            | 99. Axle cross,             |
| 12. Children's carriages—   | 101. Lever,                 |
| 83. Folding.                | 100. Longitudinal,          |
| 84. Stops.                  | 98. Side-bar cross.         |
| 86. Chute-wagons.           | 50. Springs—                |
| 13. Clips.                  | 102. Bolster,               |
| 14. Close carriages.        | 105. Braces and equalizers, |
| 15. Dashboards.             | 103. Elliptic,              |
| 125. Doors and windows.     | 51. Platform,               |
| 76. Draft-equalizers.       | 104. Shackles,              |
| 19. Drays.                  | 53. Torsion.                |
| 20. Dumping-wagons.         | 54. Standards.              |
| 21. End-gates.              | 55. Steps.                  |
| 87. Fellies and rims.       | 56. Sulkies.                |
| 23. Fenders.                | 57. Thill-couplings—        |
| 24. Fifth-wheels.           | 106. Antirattlers,          |
| 88. Hand-barrows.           | 107. Jacks.                 |
| 74. Hay-racks.              | 108. Thill-supports.        |
| 26. Hearses.                | Tires—                      |
| 27. Holdbacks.              | 110. Metallic.              |
| 75. Horse-detachers.        | 63. Tongue-supports.        |
| 28. Hose-carriages.         | 60. Top-joints.             |
| 29. Hounds.                 | 61. Top-props.              |
| 30. Hub-attaching devices.  | 62. Tops.                   |
| 89. Hub-caps.               | 114. Traction-engines—      |
| 31. Hubs.                   | 124. Steppers.              |
| 32. King-bolts.             | 64. Traction-wheels.        |
| 33. Lumber-wagons.          | 65. Trucks—                 |
| 90. Motor-vehicles.         | 121. Barrel,                |
| 77. Neck-yokes.             | 116. Brick,                 |
| 36. Poles and shafts—       | 122. Drying,                |
| 91. Convertible.            | 118. Elevating,             |
| 92. Pole-tips.              | 115. House-moving,          |
| 127. Rein-holders—          | 120. Implement,             |
| 132. Clamp,                 | 117. Piano,                 |
| 133. Spring—                | 119. Water-barrel.          |
| 134. Pivoted,               | 68. Wheelbarrows.           |
| 135. Weighted,              | 69. Wheels.                 |
| 136. Wheel.                 | 79. Whiffletree-hooks.      |
| 128. Rein-supports.         | 78. Whiffletrees.           |
| 39. Running-gear.           | 129. Whip-sockets—          |
| 40. Sand-bands.             | 130. Lock.                  |
| 41. Seat-locks.             | 131. Whip-sockets and rein- |
| 42. Seats—                  | holders combined.           |
| 43. Shifting,               |                             |



# DIVISION XI.

EXAMINER DISNEY.

CLASSES.—12, Boot and Shoe Making; 36, Boots, Shoes, and Leggings; 218, Button, Eyelet, and Rivet Setting; 54, Harness; 69, Leather Manufactures; 1, Nailing and Stapling; 231, Whips and Whip Apparatus.

## CLASS 12.—BOOT AND SHOE MAKING. (XI.)

(For definitions see Supplement No. 3, p. 2704.)

### Subclasses.

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|---|---|
| <ul style="list-style-type: none"> <li>69. Boot-tree holders.</li> <li>68. Boot-treing machines.</li> <li>116. Boot-trees—</li> <li>120. Clasps,</li> <li>118. Foot-locks,</li> <li>119. Footpieces,</li> <li>117. Plunger-expanded.</li> <li>70. Burnishing-machines—</li> <li>71. Heel—</li> <li>72. Oscillating-jack—</li> <li>73. Automatic transverse-feed,</li> <li>74. Oscillating tool-head—</li> <li>75. Automatic transverse-feed,</li> <li>77. Rotary-tool,</li> <li>76. Shank and tread,</li> <li>78. Vibrating-tool—</li> <li>79. Hand-guided.</li> <li>104. Burnishing-tools—</li> <li>105. Rotary.</li> <li>80. Cement-applying devices.</li> <li>106. Channeling-tools.</li> <li>81. Felt-boot formers.</li> <li>128. Formers—</li> <li>129. Pneumatic,</li> <li>130. Stretchers—</li> <li>132. Lateral,</li> <li>131. Lateral and longitudinal.</li> <li>42. Heel-machines—</li> <li>50. Assembling,</li> <li>49. Beading,</li> <li>46. Bevel and seat cutting,</li> <li>47. Breasting,</li> <li>43. Breasting and nailing,</li> <li>44. Die-cutting and nailing,</li> <li>45. Molding,</li> <li>45. Trimming and nailing.</li> <li>82. Inseam-trimming machines—</li> <li>83. Horn-carried knife.</li> <li>2. Lasting and nailing machines—</li> <li>3. Hand-guided driver,</li> <li>4. Multiple drivers,</li> <li>5. Pivoted-jack.</li> <li>6. Lasting and sewing machines.</li> <li>7. Lasting-machines—</li> <li>14. End-lasting,</li> <li>8. Girth-stretcher,</li> <li>9. Nipper-stretcher—</li> <li>10. Wiper-folder—</li> <li>11. Multiple work-supports,</li> <li>15. Relasting,</li> <li>16. Tack-pullers,</li> <li>12. Wiper-stretcher—</li> <li>13. Pronged.</li> <li>107. Lasting-tools—</li> <li>113. Fly-closers,</li> <li>108. Nailing and stretching,</li> <li>110. Stretchers—</li> <li>111. Multiple-grip,</li> <li>112. Toe,</li> <li>109. Stretchers and hammers.</li> <li>133. Lasts—</li> <li>134. Adjustable,</li> <li>139. Heel-plates and sockets,</li> <li>137. Instep-block fasteners—</li> <li>138. Sliding-bolt,</li> <li>140. Peg-receivers,</li> <li>135. Separate heel-block—</li> <li>136. Hinged,</li> <li>141. Shoe-retainers.</li> <li>1. Miscellaneous.</li> <li>121. Patterns.</li> <li>84. Peg-cutters.</li> <li>142. Processes—</li> <li>144. Blank-laying-out,</li> <li>147. Heel,</li> </ul> | <ul style="list-style-type: none"> <li>Processes—</li> <li>145. Lasting,</li> <li>146. Miscellaneous parts.</li> <li>60. Shank-machines.</li> <li>122. Shoemakers' benches.</li> <li>85. Sole and heel edge trimmers—</li> <li>86. Clamped-work—</li> <li>87. Rotary-cutter,</li> <li>114. Hand-tools—</li> <li>115. Double-grip,</li> <li>88. Rotary-cutter—</li> <li>90. Adjustable rand-guide,</li> <li>89. Multiple cutter-head,</li> <li>91. Rotary cutter-heads—</li> <li>92. Axially-adjustable,</li> <li>94. Inserted cutters—</li> <li>95. Angularly-adjustable,</li> <li>93. Supplemental cutters.</li> <li>17. Sole-machines—</li> <li>21. Blank-molding—</li> <li>22. Edge,</li> <li>23. Blank-rounding—</li> <li>25. Clamped-work—</li> <li>26. Rotary work and cutter,</li> <li>24. Strip-feed,</li> <li>27. Channeling—</li> <li>28. Clamped-work,</li> <li>18. Channeling and trimming—</li> <li>19. Clamped-work,</li> <li>29. Channel-flap layers,</li> <li>30. Channel-flap turners,</li> <li>31. Edge-inking,</li> <li>32. Imitation-stitch,</li> <li>30. Insole-reinforcing,</li> <li>33. Laying and leveling—</li> <li>38. Dies and formers,</li> <li>36. Multiple work-supports—</li> <li>37. Revolvable,</li> <li>35. Oscillating jack and former,</li> <li>34. Roll,</li> <li>39. Lining-appliers,</li> <li>40. Slitting and grooving,</li> <li>41. Stitch-separating and indenting.</li> <li>61. Toe and heel stiffener machines—</li> <li>64. Molding—</li> <li>65. Roll,</li> <li>66. Separable-matrix,</li> <li>62. Skiving—</li> <li>63. Recessed-carrier.</li> <li>103. Tools.</li> <li>96. Upper-creasing.</li> <li>97. Upper crimping and stretching—</li> <li>102. Formers and clamps,</li> <li>99. Former and wiper—</li> <li>100. Belt-carried former,</li> <li>101. Pivoted-former,</li> <li>98. Shank-stretchers.</li> <li>51. Upper-machines—</li> <li>52. Assembling,</li> <li>53. Beading,</li> <li>54. Edge-notching,</li> <li>55. Folding,</li> <li>56. Marking,</li> <li>58. Skiving,</li> <li>59. Strap-covering,</li> <li>57. Turning.</li> <li>67. Welt and rand machines.</li> <li>123. Work-supports—</li> <li>124. Expandible-holder,</li> <li>125. Heel-clamping,</li> <li>126. Last-jacks—</li> <li>127. Saddle and spindle.</li> </ul> |
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## CLASS 36.—BOOTS, SHOES, AND LEGGINGS. (XI.)

(For definitions see Supplement No. 1, p. 2605.)

### Subclasses.

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| <ul style="list-style-type: none"> <li>59. Antislipping devices—</li> <li>67. Calks,</li> <li>62. Detachable—</li> <li>66. Attached fasteners,</li> <li>64. Clamping—</li> <li>65. Screw,</li> <li>63. Sandal,</li> <li>61. Disengaging,</li> <li>60. Pole-climbers.</li> <li>69. Counter and heel supports.</li> <li>68. Counter-stiffeners.</li> <li>9. Felt and fabric.</li> <li>70. Garment-protectors.</li> <li>34. Heels—</li> <li>35. Cushion—</li> <li>36. Detachable,</li> <li>37. Internal cushion,</li> <li>38. Metallic spring,</li> <li>42. Detachable,</li> <li>40. Metallic shell—</li> <li>41. Detachable,</li> <li>39. Rotary.</li> <li>10. Inside slippers.</li> <li>2. Leggings and gaiters.</li> <li>1. Miscellaneous.</li> <li>11. Moccasins.</li> <li>71. Pads and foot-supporters.</li> <li>72. Protectors—</li> <li>73. Sole and heel—</li> <li>75. Embedded,</li> <li>74. Spur-attached.</li> <li>4. Rubber—</li> <li>5. Overshoes—</li> <li>6. Heelless,</li> <li>7. Retainers—</li> <li>8. Heel-engaging.</li> <li>76. Shanks.</li> <li>12. Sole-attaching means—</li> <li>15. Detachable soles,</li> <li>23. Fasteners—</li> <li>24. Peg,</li> </ul> | <ul style="list-style-type: none"> <li>Sole-attaching means—</li> <li>16. Outturned uppers,</li> <li>22. Prepared soles,</li> <li>20. Processes,</li> <li>14. Rubber,</li> <li>21. Seams,</li> <li>18. Single-faced stitch,</li> <li>19. Through-and-through,</li> <li>17. Welt-connected,</li> <li>13. Wooden soles.</li> <li>25. Soles—</li> <li>28. Cushion—</li> <li>29. Pneumatic,</li> <li>26. Fleece slipper,</li> <li>43. Insoles—</li> <li>44. Laminated,</li> <li>30. Laminated,</li> <li>32. Rubber,</li> <li>31. Sectional,</li> <li>27. Spring-heel,</li> <li>33. Wooden.</li> <li>77. Toe caps and tips.</li> <li>45. Uppers—</li> <li>47. Blanks—</li> <li>48. Integral vamp and quarters—</li> <li>49. Seamless,</li> <li>50. Closures—</li> <li>52. Buttonhole-pieces,</li> <li>51. Elastic,</li> <li>53. Slit stays,</li> <li>54. Tongue-pieces,</li> <li>46. Corded,</li> <li>55. Linings,</li> <li>58. Metallic seam-stiffener,</li> <li>56. Pulls,</li> <li>57. Seams, stays, and pipings.</li> <li>3. Ventilated.</li> <li>78. Welts and rands.</li> </ul> |
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## CLASS 218.—BUTTON, EYELET, AND RIVET SETTING. (XI.)

(For definitions see Supplement No. 1, p. 2582.)

### Subclasses.

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|---|--|
| <ul style="list-style-type: none"> <li>Implements—</li> <li>20. Button—</li> <li>22. Pliers—</li> <li>24. Staple-fastener,</li> <li>23. Staple-fastener,</li> <li>21. Riveting,</li> <li>25. Button-detaching,</li> <li>26. Eyeletting,</li> <li>26. Lacing-hook,</li> <li>19. Riveting.</li> <li>Machines—</li> <li>4. Button—</li> <li>12. Button-feeders,</li> <li>Eye-shank—</li> <li>7. Tack-fastener,</li> <li>5. Riveting—</li> <li>6. Magazine,</li> <li>Staple-fastener—</li> <li>8. Staple making and setting,</li> </ul> | <ul style="list-style-type: none"> <li>Machines—</li> <li>Button—</li> <li>Staple-fastener—</li> <li>10. Threaded-button feed</li> <li>11. Threaders,</li> <li>9. Threading and setting,</li> <li>13. Tack-fastener feeders,</li> <li>18. Button-carding,</li> <li>14. Eyeletting—</li> <li>15. Magazine,</li> <li>16. Lacing-hook—</li> <li>17. Magazine,</li> <li>1. Riveting—</li> <li>2. Magazine,</li> <li>3. Staple,</li> <li>28. Packages.</li> </ul> |
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# DIVISION XI.—CONTINUED.

## CLASS 54.—HARNESS. (XI.)

(For definitions see Supplement No. 3, p. 2701.)

### Subclasses.

- |                                      |                               |
|--------------------------------------|-------------------------------|
| 69. Attaching and detaching devices. | 32. Hame-tugs—                |
| 4. Back-bands.                       | 33. Adjustable.               |
| 79. Blankets.                        | 64. Hitching-strap holders.   |
| 80. Bonnets and shields.             | 34. Hitching-straps.          |
| 71. Breaking and training devices—   | 82. Horse-boots.              |
| 72. Leg-spreaders.                   | 87. Loops.                    |
| 58. Breast-straps—                   | 35. Martingales.              |
| 59. Shields and connectors.          | 1. Miscellaneous.             |
| 5. Breeching.                        | 77. Ox-yokes.                 |
| 6. Bridles—                          | 65. Pads—                     |
| 7. Bits—                             | 66. Back.                     |
| 8. Mouthpieces—                      | 68. Fasteners.                |
| 9. Double.                           | 67. Neck.                     |
| 10. Blinds—                          | 73. Rein-guards.              |
| 11. Covering and uncovering.         | 74. Rein-holds.               |
| 12. Brow-bands.                      | 36. Reins.                    |
| 13. Crown-loops.                     | 37. Saddles—                  |
| 14. Gag-runners.                     | 38. Harness—                  |
| 15. Strangers.                       | 39. Cart.                     |
| 61. Check-hooks—                     | 41. Cushions.                 |
| 62. Movable-keeper.                  | 40. Pivoted side plates.      |
| 70. Checking and unchecking devices. | 42. Seat and tree connectors. |
| 16. Checkreins—                      | 43. Tug-bearers.              |
| 17. Hook-loops.                      | 44. Riding—                   |
| 19. Collars—                         | 46. Attachments.              |
| 20. Breast.                          | 45. Side.                     |
| 21. Fasteners.                       | 83. Spurs.                    |
| 18. Combined collar and hames.       | 47. Stirrups—                 |
| 22. Cruppers.                        | 48. Elastic.                  |
| 86. Elastic connections.             | 49. Safety.                   |
| 81. Fly-nets.                        | 84. Supports.                 |
| 23. Girths.                          | 78. Tail-holders.             |
| 24. Halters—                         | 63. Terrets.                  |
| 85. Connectors.                      | 50. Thill-tugs—               |
| 30. Hame and trace connectors—       | 51. Open.                     |
| 31. Adjustable.                      | 54. Trace-carriers—           |
| 25. Hames—                           | 55. Hook.                     |
| 26. Fasteners—                       | 56. Trace-end supporters.     |
| 27. Lever.                           | 52. Traces—                   |
| 28. Strap.                           | 53. Whiffletree-connectors.   |
| 29. Top.                             | 2. Track.                     |
|                                      | Trimmings—                    |
|                                      | 75. Covered.                  |
|                                      | 76. Ornamental.               |
|                                      | 57. Underchecks.              |
|                                      | 3. Yokes.                     |

## CLASS 69.—LEATHER MANUFACTURES. (XI.)

(For definitions see Supplement No. 2, p. 2552.)

### Subclasses.

- |                             |                           |
|-----------------------------|---------------------------|
| 21. Articles and processes. | Machines—                 |
| 1. Machines—                | Skiving and splitting—    |
| 1.5. Belt-stretching.       | Fixed-knife—              |
| 2. Cutting and impressing.  | 13. Roller-feed—          |
| 5. Folding and rolling.     | 14. Trimming attachments. |
| 8. Forming and pressing.    | 15. Reciprocating-knife.  |
| 3. Horse-collar-shaping.    | 16. Rotary disk knife.    |
| 4. Horse-collar-stuffing.   | 17. Strap-finishing.      |
| 6. Rounding.                | 18. Tack-leathering.      |
| 7. Seam-pressing.           | 20. Tools.                |
| 9. Skiving and splitting—   | 19. Work-holders.         |
| 10. Belt-knife.             |                           |
| 11. Fixed-knife—            |                           |
| 12. Reciprocating-feed.     |                           |

## CLASS 1.—NAILING AND STAPLING. (XI.)

(For definitions see Supplement No. 2, p. 2558.)

### Subclasses.

- |                                    |  |
|------------------------------------|--|
| 44. Glaziers' point-setters.       | Machines—                                |
| implements—                        | Shoe—                                    |
| 47. Nail-driving—                  | Heel-nailing—                            |
| 46. Magazine.                      | 35. Cross-head and turret.               |
| 48. Staple forming and setting.    | 37. Laterally - adjustable driver-block. |
| 50. Staple-setting—                | 38. Multiple rotary heel-support.        |
| 49. Magazine.                      | 39. Nail-feeding.                        |
| Strip—                             | 34. Heel-plate-attaching.                |
| 52. Nail and peg.                  | 33. Heel pressing and loading.           |
| 53. Tack.                          | 19. Nail-driving—                        |
| 51. Wire-nail forming and driving. | 18. Magazine.                            |
| 43. Lath and shingle nailing.      | 20. Staple forming and setting.          |
| Machines—                          | 21. Staple-setting.                      |
| Blind slat and rod—                | Strip—                                   |
| 54. Staple forming and setting.    | 22. Nail.                                |
| 55. Staple-setting.                | 23. Peg.                                 |
| Book—                              | 24. Tack.                                |
| 7. Staple forming and setting.     | 24.5. Strips.                            |
| 8. Staple-setting.                 | 25. Wire inserting and cutting—          |
| Box—                               | 26. Screw.                               |
| 14. Assembling and nailing.        | 27. Wire-nail forming and driving—       |
| 10. Nail-driving—                  | 28. Direct wire-feed.                    |
| 16. Nail-feeding.                  | 29. Pivoted nail-carrier.                |
| 15. Tables.                        | 30. Reciprocating nail-carrier.          |
| 9. Nail forming and driving.       | 31. Rotary nail-carrier.                 |
| 11. Staple forming and setting—    | 41. Work-supports.                       |
| 12. Sheet-metal.                   | 2. Staple forming and setting.           |
| 13. Staple-setting.                | 4. Staple-setting—                       |
| 1. Nail-driving—                   | 3. Magazine.                             |
| 5. Boxes.                          | 45. Magazine-hammers.                    |
| 6. Nail-feeding.                   | 56. Packages.                            |
| 40. Packet-looping.                |  |
| 42. Reels.                         |  |
| Shoe—                              |  |
| 32. Heel-nailing—                  |  |
| 36. Cross-head.                    |  |

## CLASS 231.—WHIPS AND WHIP APPARATUS. (XI.)

(For definitions see Supplement No. 3, p. 2703.)

### Subclasses.

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Whip-machines.               | Whips—                       |
| 2. Whips—                       | 5. Lash and snap fastenings. |
| 6. Caps, buttons, and joints.   | 4. Lashes.                   |
| 3. Convertible whips and canes. |                              |

# DIVISION XII.

EXAMINER WRIGHT.

CLASSES.—187, Elevators; 64, Journal-Boxes, Pulleys, and Shafting; 184, Lubrication; 74, Machine Elements.

## CLASS 187.—ELEVATORS. (XII.)

### Subclasses.

- |                              |                                |
|------------------------------|--------------------------------|
| 11. Automatic stops.         | Safety devices—                |
| 12. Cbairs.                  | Catches and grips—             |
| 13. Combined locks and auto- | 46. Vertically-pivoted,        |
| matic stops.                 | 44. Well-supported mov-        |
| 2. Controllers—              | able stops—                    |
| 35. Running-rope.            | 45. Car-actuated,              |
| 14. Counterweights.          | 18. Door-locked controllers,   |
| 3. Dumb-waiters.             | 21. Overwinding,               |
| 1. Elevators.                | 25. Slack-cable stops,         |
| 15. Guides.                  | 19. Speed-governors—           |
| 5. Hod.                      | 20. Fluid-retarders,           |
| 6. Indicators.               | 23. Well-bottom cushions,      |
| 7. Lazy-tongs.               | 24. Well-obstruction.          |
| 16. Locks.                   | 9. Screw.                      |
| 17. Mail.                    | 26. Screw and traveling sbeave |
| 47. Rope-drive.              | or block.                      |
| 8. Safety devices—           | Well-doors—                    |
| Catches and grips—           | Horizontal—                    |
| 36. Bodily-movable—          | 27. Horizontal-hinge,          |
| 37. Wedge,                   | 28. Horizontally-slidable,     |
| 39. Clutch-loop,             | 29. Vertical-hinge,            |
| 40. Horizontally-pivoted     | 30. Vertically-slidable,       |
| jaws                         | Vertical—                      |
| 41. Eccentric,               | 31. Horizontal-hinge,          |
| 38. Miscellaneous,           | 32. Horizontally-slidable,     |
| 42. Momentum-operated,       | 33. Vertical-binge,            |
| 43. Rack-engaging catches,   | 34. Vertically-slidable.       |

## CLASS 64.—JOURNAL-BOXES, PULLEYS, AND SHAFTING. (XII.)

### Subclasses.

- |                             |                              |
|-----------------------------|------------------------------|
| 27. Axles, lubricating.     | Pulleys—                     |
| 4. Belt-shifters—           | 44. Compositions for coating |
| 51. Lifters.                | rims,                        |
| 5. Belt-tighteners.         | 8. Expansible,               |
| 7. Compensating journals.   | 40. Grip,                    |
| 41. Gudgeons.               | 26. Lubricating,             |
| 21. Idle-pulley supports.   | 45. Non-metallic rim-cover-  |
| 10. Journal-boxes—          | ings,                        |
| 52. Bodily-movable,         | 18. Split.                   |
| 20. Brasses,                | Roller-bearings—             |
| 19. Compositions,           | 36. Ball—                    |
| 53. Eccentric adjustment,   | 57. Antifrictionally-spaced, |
| 47. Fluid-support,          | 58. Retained,                |
| 22. Guards,                 | 59. Spaced,                  |
| 23. Lids,                   | 37. Ball-and-cylinder,       |
| 24. Lubricating—            | 38. Cylinder—                |
| 31. Band-applying,          | 39. Circular series—         |
| 32. Centrifugal,            | 61. Antifrictionally-        |
| 28. Coolers,                | spaced,                      |
| 46. Materials for feeding   | 62. Spaced,                  |
| oils,                       | 60. Toothed.                 |
| 33. Roller-applying—        | 12. Shaft-casings.           |
| 34. Elastically-support-    | 13. Shaft-couplings.         |
| ed,                         | 14. Shaft-hangers.           |
| 56. Vertical spindle,       | 29. Shafting—                |
| 35. Yieldably-supported     | 30. Flexible.                |
| pads,                       | 25. Thrust-bearings—         |
| 54. Rocking adjustment,     | 49. Ball,                    |
| 48. Vertical spindle, auto- | 50. Cylinder.                |
| matic centering,            | Truck-bearings—              |
| 55. Wear-compensating.      | 63. Ball,                    |
| 17. Pulleys—                | 64. Cylinder,                |
| 43. Air-escape rims,        | 65. Rocker.                  |

## CLASS 184.—LUBRICATION. (XII.)

(For definitions see Bulletin No. 19, p. 3.)

### Subclasses.

- |                               |                                |
|-------------------------------|--------------------------------|
| 12. Conveyers.                | Lubricators—                   |
| 14. Lubricators—              | Gravity-feed—                  |
| 15. Belt, cable, or chain lu- | Automatic cut-off—             |
| bricators—                    | Horizontally-recip-            |
| 17. Roller-applied,           | roating valve,                 |
| 16. Swab-applied,             | Rotatable-valve—               |
| 103. Constant-level,          | 72. Fluid-pressure op-         |
| 18. Cylinder-lubricators—     | erated,                        |
| 20. Rotary-swab-applied,      | 71. Mechanically-op-           |
| 19. Swab-applied,             | erated,                        |
| 106. Drip-pans,               | 73. Pendulum-oper-             |
| 21. Elevator-guide lubrica-   | ated,                          |
| tors—                         | 68. Thermostats,               |
| 23. Rotary-brush or roller,   | Vertically-reciproc-           |
| 22. Swab,                     | ating valve—                   |
| Force-feed—                   | 77. Centrifugally-op-          |
| 64. Capillary attraction,     | erated,                        |
| 61. Conveyers—                | 76. Fluid-pressure op-         |
| 62. Bucket—                   | erated,                        |
| 63. Rotary,                   | 74. Mechanically-oper-         |
| Fluid-operated—               | ated—                          |
| 60. Abrasion,                 | 75. Spring-retained,           |
| 49. Condensation dis-         | 78. Pendulum-oper-             |
| placement—                    | ated,                          |
| 53. Auxiliary feeding-        | 69. Vibrators,                 |
| receptacles,                  | 80. Combined closure and       |
| 52. Choke-plugs,              | valve,                         |
| 50. Double-passage,           | 87. Fiber valve,               |
| 51. Single-passage,           | 86. Locking-valve,             |
| 54. Displacement,             | 83. Measuring-valve,           |
| 55. Steam or air—             | 81. Multiple-feed,             |
| 57. Initial pressure,         | 85. Sipbons,                   |
| 56. Injectors,                | 82. Vertically-movable         |
| 58. Suction—                  | valve,                         |
| 59. Vented,                   | 104. Heating and cooling de-   |
| Followers—                    | vices,                         |
| 47. Balanced-piston,          | 99. Liquefiers—                |
| 43. Centrifugal,              | 98. Solid-stick—               |
| 39. Fluid-operated—           | 88. Oil-cup closures—          |
| 40. Fluid-return,             | 89. Depressible cap,           |
| 41. Spring-assisted,          | 90. Hinged-cover—              |
| 42. Spring-return,            | 91. Spring-controlled,         |
| 38. Hand-operated,            | 92. Rotatable-cover—           |
| 48. Locking devices,          | 93. Spring-controlled,         |
| 37. Mechanically-oper-        | 94. Slidable-cover—            |
| ated,                         | 95. Spring-controlled,         |
| 44. Pendulum-operated,        | 24. Piston-rod lubricators—    |
| 45. Spring-operated,          | 25. Swab,                      |
| 46. Weight-operated,          | 105. Refilling devices,        |
| 26. Pumps—                    | 101. Roller,                   |
| 36. Attachments,              | 96. Sight-feeds—               |
| 29. Fluid-operated,           | 97. Attachments,               |
| 28. Hand-operated,            | 100. Slide-bearing lubrica-    |
| 27. Mechanically-oper-        | tors,                          |
| ated,                         | 102. Swab.                     |
| 34. Oscillating distribut-    | 2. Mine-car lubrication.       |
| ing-valve,                    | 1. Miscellaneous.              |
| 32. Oscillating-piston,       | 5. Slide-bearing lubrication.  |
| 30. Pendulum-operated,        | 13. Splasb.                    |
| Rotary,                       | 6. Systems—                    |
| 35. Rotary distributing-      | 7. Conveying devices—          |
| valve,                        | 8. Continuous-tube,            |
| 33. Rotary piston and         | 9. Sliding-tube.               |
| valve,                        | 10. Wipers,                    |
| 65. Gravity-feed—             | 11. Splasb.                    |
| 84. Air-tight receptacle,     | 3. Track or wheel lubrication. |
| Automatic cut-off—            | 4. Windmill lubrication.       |
| Centrifugal,                  |                                |
| Electrically-oper-            |                                |
| ated.                         |                                |

# DIVISION XII.—CONTINUED.

## CLASS 74.—MACHINE ELEMENTS. (XII.)

### Subclasses.

62. Belts—	Gearing—
63. Laminated,	Sprocket-chains—
64. Link,	43. Solid-link,
65. Metal-reinforced,	44. Solid-link and coupler,
66. Round,	41. Teeth and bodies,
67. Woven-wire.	29. Yieldable.
1. Cams and eccentrics.	8. Gibs and keys.
5. Cranks and levers—	53. Intermittent-grip devices—
38. Cranks and wrist-plns,	54. Ratchet,
33. Handles,	55. Strap and dog or ball.
39. Hand-levers.	13. Machine-brakes—
6. Fly-wheels.	45. Centrifugal speed-regu-
56. Gear-casings.	lators,
7. Gearing—	69. Dash-pots,
50. Alternating rotary,	70. Electrically-operated,
21. Belt—	46. Stop mechanisms,
51. Guides,	37. Strap.
26. Frictional,	14. Mechanical movements.
57. Interchangeably-locked—	20. Overcoming dead-centers.
58. Slidable gears,	16. Pawls and ratchets—
59. Slidable keys,	60. Noiseless.
34. Planetary—	17. Pitmen—
35. Eccentric,	71. Counterbalanced,
36. Screw,	47. Longitudinally-adjust-
40. Screw-and-nut,	able rod,
28. Sectional,	48. Longitudinally-yieldable.
31. Sprocket—	27. Racks and pinions.
61. Expandible,	52. Set-screw guards.
32. Sprocket-chains—	68. Springs.
49. Connectors,	19. Universal joints.
42. Endless-belt,	



# DIVISION XIII.

## EXAMINER SEWALL.

CLASSES.—86, Arms, Projectiles, and Explosive Charges: Making; 10, Bolt, Nail, Nut, Rivet, and Screw Making; 77, Boring and Drilling; 79, Button-Making; 59, Chain, Staple, and Horseshoe Making; 85, Driven, Headed, and Screw-Threaded Fastenings; 90, Gear-Cutting, Milling, and Planing; 205, Metal-Drawing; 78, Metal Forging and Welding; 80, Metal-Rolling; 76, Metal Tools and Implements: Making; 29, Metal-Working; 163, Needle and Pin Making; 82, Turning.

### CLASS 86.—ARMS, PROJECTILES, AND EXPLOSIVE CHARGES. MAKING (XIII.)

(For definitions see Bulletin No. 5, p. 5.)

#### Subclasses.

23. Ammunition-loading—	Ammunition-making—
42. Bullet-patching,	10. Caps and cartridges—
43. Bullet-setting,	11. Paper shells—
36. Capping and uncapping—	12. Assembling,
37. Implements—	18. Processes,
38. Magazine,	14. Shell-heading,
39. Crimping—	17. Shell lining and varnishing,
41. Crimper-heads,	15. Shell tapering and necking,
40. Implements,	16. Shell-trimming,
31. Filling—	19. Lubricating,
32. Cap and cartridge priming,	6. Shells.
33. Implements—	47. Cartridge-packing.
34. Flasks and chargers,	45. Feeding devices—
35. Measures,	46. Shell.
29. Filling and ramming—	4. Gun-barrels.
30. Rammers,	20. Loading fireworks and blasting charges—
24. Implements,	21. Implements—
25. Loading and shell-closing—	22. Fuse.
28. Implements,	1. Miscellaneous.
26. Rectilinear shell-feed,	2. Ordnance—
27. Rotary shell-feed,	3. Processes.
44. Shell-holders.	5. Rifling.
Ammunition-making—	
7. Bullets and shot—	
8. Bullet-swaging,	
9. Processes,	

### CLASS 10.—BOLT, NAIL, NUT, RIVET, AND SCREW MAKING. (XIII.)

(For definitions see Supplement No. 4, p. 2998.)

#### Subclasses.

155. Bolt and nut assembling.	Capping nails and screws—
11. Bolt and rivet making—	161. Processes,
22. Anvils,	157. Rectangular stock-feed,
19. Bolt-head finishing—	158. Rotary work-holder.
20. Broaching,	162. Distributors and feeders—
21. Bolt-pointing,	163. Agitated-chute,
14. Cotter-slot punching,	164. Agitated-hopper,
24. Dies,	166. Gripping feeding-jaws,
26. Heading-punches,	165. Inclined-chute,
12. Multiple-header,	171. Nail-plate—
27. Processes,	178. Nippers and nose-pieces,
15. Reciprocating die and header—	172. Oscillating,
16. Toggle-closing dies,	173. Reversing—
17. Wedge-closing dies,	174. Geared—
13. Rotary multiple dies,	175. Rack-and-pinion,
23. Safety devices,	176. Segmental,
25. Shears,	177. Strap-drive.
18. Side-swaging.	167. Reciprocating-lifter,
156. Capping nails and screws—	168. Rotary-cylinder,
160. Dies,	169. Rotary-disk,
159. Nicking devices,	170. Rotary-hopper.

### CLASS 10.—Continued.

1. Miscellaneous.	Screw-threading—
Nail-making—	Implements—
28. Cut nails—	111. Dies—
32. Cutting,	110. Combined cutting-off and threading,
30. Cutting and heading,	116. Divided—
31. Cutting and pointing,	117. Coned-screw adjustment,
35. Dies,	118. Integral—
36. Horseshoe-nails—	119. Adjustments,
37. Cutting and finishing,	114. Multiple—
40. Dies,	115. Rotatable die-block,
38. Finishing—	112. Pipe-trimming,
39. Rotary work-holder,	120. Radial-chaser—
41. Nail-plates,	121. Adjustable—
42. Processes,	122. Cam-operated,
33. Nail-plates,	113. Thread-trimming,
29. Processes,	123. Die-stocks—
34. Tack-strips,	127. Bushings,
43. Wire nails—	125. Hinged,
53. Dies,	126. Oilers,
44. Making and distributing,	124. Ratchet,
47. Multiple-header—	89. Machines—
48. Opposite,	101. Chasing-cutter—
54. Processes,	102. Rotary,
49. Reciprocating die and header—	94. Collapsing-die—
50. Toggle-closing dies,	95. Bevel-closing,
51. Wedge-closing dies,	96. Cam-closing,
52. Rotary work-holder,	97. Lever-closing—
46. Spiral-shank,	98. Cone,
45. String-nails,	99. Toggle,
55. Wrought nails—	100. Pivoted chaser-carrier,
64. Horseshoe-nails—	87. Combined,
65. Chain-feed,	90. Cutting-off and threading,
70. Dies,	105. Feeds,
71. Processes,	106. Lubricators,
66. Roll-forging—	91. Multiple-die—
67. Traveling-roll,	92. Alined,
69. Rotary work-holder,	93. Turret,
68. Side-swage,	103. Recessed cylindrical die-block,
56. Spikes—	104. Screw chaser adjustment,
62. Blanks,	107. Work-holders—
61. Dies,	108. Nipple-chucks,
59. Pointing,	152. Swaging—
63. Processes,	153. Reciprocating-die,
57. Reciprocating die and header,	Tapping—
58. Roller-die,	Implements—
60. Rotary work-holder.	Taps—
72. Nut and washer making—	141. Adjustable,
74. Coiling and forging,	142. Built-up,
85. Dies,	146. Collapsible—
76. Forging—	143. Cam-core,
78. Double punch-drive,	144. Wedge-core,
77. Rotary multiple dies,	140. Combined,
79. Side-swage,	147. Guides,
80. Side-swage and mandrel,	148. Tap-wrenches—
73. Lock-washer making,	149. Axial-screw clamp,
81. Nut-broaching,	150. Ratchet,
83. Nut-facing—	151. Transverse-screw clamp,
84. Arbors,	129. Machines—
75. Nut finishing and tapping,	128. Combined reaming and tapping,
82. Nut-milling,	133. Double tap-grip,
86. Processes,	139. Feeds,
2. Screw-making—	130. Multiple tap-spin-die—
5. Head-nicking—	132. Circular-gang,
7. Punch and die,	131. Tee-threading,
6. Rotary work-holder,	134. Releasable-tap,
3. Head nicking and shaving,	136. Reversing mechanisms—
8. Head-shaving,	137. Bevel-gear,
9. Pointing,	138. Spur-gear,
4. Pointing and threading,	135. Yielding tap-driver,
10. Processes,	154. Thread-milling,
Screw-threading—	88. Wooden screws.
Implements—	
109. Combined turning and threading,	

# DIVISION XIII.—CONTINUED.

## CLASS 77.—BORING AND DRILLING. (XIII.)

(For definitions see Supplement No. 2, p. 2560.)

### Subclasses.

55. Appliances—	Drilling-machines—
56. Boring-bars—	Portable—
57. Feed devices.	Rail-drills—
58. Boring-heads.	9. Quick-setting,
59. Drill-braces.	10. Ratchet,
60. Drill-holders.	20. Post,
62. Jigs.	27. Radial—
61. Non-circular cut.	28. Vertically - adjustable
63. Work-supports—	arm,
64. Indexing.	30. Treadle-feed.
Boring-machines—	67. Drills—
3. Horizontal.	69. Annular.
1. Miscellaneous.	65. Combined—
2. Portable.	66. Drills and countersinks.
4. Vertical.	68. Oil-conduit,
Drilling-machines—	71. Tangs.
31. Angular spindle adjust-	70. Twist.
ment,	44. Ratchet-drills—
35. Back-gears.	49. Axially-yielding clutch,
19. Bench.	50. Band-grip,
18. Center-drills.	43. Combination,
36. Counterweights.	Double-acting—
32. Feed mechanisms—	46. Axially-swinging lever,
33. Automatic-stop.	47. Transversely - swinging
34. Frictional.	lever,
29. Friction-drive.	54. Feed-screws,
6. Independent motor.	48. Reversible.
5. Miscellaneous.	45. Self-feeding.
Multiple-spindle—	51. Sliding-pawl,
21. Axially-opposite.	52. Wedging-pawl—
22. Parallel axes—	53. Roller-grip.
23. Circular-gang.	72. Reamers—
24. Independent adjust-	75. Adjustable—
ment,	76. Central cone,
26. Radial axes.	77. Countersinks.
25. Turret.	73. Pipe-bur,
7. Portable—	74. Shell.
16. Bow.	37. Tapping mains—
13. Clamped—	38. Closed tool-chamber—
14. Chain.	39. Multiple tool-holder,
12. Drilling and tapping.	40. Valved—
17. Cord-and-spring drive.	41. Permanent—
15. Flexible shaft.	42. Annular cutter.
8. Rail-drills—	
11. Clamp-frames,	

## CLASS 79.—BUTTON-MAKING. (XIII.)

(For definitions see Bulletin No. 15, p. 10.)

### Subclasses.

17. Blank-feeders.	Pearl and composition—
3. Metallic—	Drilling—
4. Covered—	Single spindle—
5. Cloth.	14. Single chuck,
1. Miscellaneous.	7. Surfacing—
Pearl and composition—	9. Multiple chuck,
15. Blank-sawing—	9. Tool-sharpening,
16. Tubular saw,	10. Trimming.
Drilling—	6. Surfacing and drilling.
Multiple spindle—	2. Shank-buttons.
11. Axially opposite,	18. Work-supports.
12. Multiple chuck,	
13. Single chuck,	

## CLASS 59.—CHAIN, STAPLE, AND HORSESHOE MAKING.

(XIII.)

(For definitions see Bulletin No. 19, p. 11.)

### Subclasses.

1. Chain-making—	Chain-making—
2. Bead chain,	4. Roller-chain,
27. Bending.	13. Sheet-metal—
35. Blanks and processes.	15. Stamping and bending,
16. Combined machines—	14. Prong-connected,
21. Bending and eye-form-	29. Sizing and trimming,
ing,	5. Sprocket-chain—
22. Bending and welding.	8. Blanks and processes,
20. Coiling, cutting, assem-	7. Link-assembling,
bling,	6. Sheet-metal,
17. Coiling, cutting, bend-	30. Swaging and shaping,
ing, curbing,	9. Swivel-making,
23. Cutting and bending—	31. Welding—
24. Automatic feed—	33. Dies,
25. Link-assembling,	34. Holding devices,
18. Feeding, cutting, bend-	32. Rotary feed,
ing, welding,	10. Weldless—
19. Feeding, cutting, bend-	12. Blanks and processes,
ing, wrapping,	11. Link separation.
26. Winding and welding,	78. Chains—
28. Curbing,	93. Attachments—
3. Loop-interlocked,	94. Hooks and grabs,

## CLASS 59.—Continued.

Chains—	Horseshoe-making—
79. Elastic.	Combined-machines—
81. Links—	49. Cutting, bending, shap-
85. Detachable—	ing—
87. Double-lap—	50. Reciprocating die-
88. Pivoted,	block,
89. Pivoted closure,	51. Rotary die-block,
86. Shackles,	38. Cutting, bending, shap-
90. One-piece—	ing, punching and
91. Sheet-metal,	creasing—
92. Wrapped and twisted,	39. Calk and clip bending
80. Ornamental—	and forming,
82. Links,	40. Reciprocating jaw or
81. Multistrand roller,	die-block—
95. Swivels,	41. Reciprocating
83. Wire.	punch and creaser,
36. Horseshoe-making—	42. Rotary die-block—
56. Bending,	43. Rotary punch and
62. Blanks and bars—	creaser,
63. Rolling—	55. Shaping, punching, and
64. Processes,	creasing,
65. Calk and clip bending,	60. Dies and tools,
forming, sharpening,	61. Processes,
welding,	37. Punching and creasing,
66. Calk-making—	58. Swaging and shaping,
67. Blanks and bars.	59. Trimming and bur-re-
69. Calks,	moving.
68. Processes,	96. Key-holders—
Combined machines—	97. Flexible,
52. Bending and shaping—	98. One-piece,
53. Reciprocating die-	99. Rotary and sliding clo-
block,	sures.
54. Rotary die-block,	70. Ox-shoe making.
44. Bending, shaping,	71. Staple-making—
punching and creas-	33. Blanks and processes,
ing—	75. Cutting and bending—
45. Reciprocating jaw or	76. Rotary former,
die-block—	73. Cutting, bending, barb-
46. Reciprocating	ing,
punch and creaser,	74. Cutting, bending, point-
Rotary die-block—	forming,
48. Rotary punch and	72. Sheet-metal.
creaser,	

## CLASS 85.—DRIVEN, HEADED, AND SCREW-THREADED FASTENINGS. (XIII.)

(For definitions see Supplement No. 3, p. 2694.)

### Subclasses.

1. Bolts—	Nails, spikes, and tacks—
2. Expanding-core,	22. Threaded and indented
24. Expanding-sleeve—	wire.
28. Double wedge,	32. Nuts—
9. Heads,	33. Adjustable-thread,
4. Lapped,	34. Blanks,
3. Pivoted end-lock,	35. Capped,
5. Threadless—	36. Threadless,
6. Axial-wedge,	36.5. Turnbuckles.
7. Key-lock—	53. Ornamental heads—
8. Bifurcated.	55. Clip-attached,
10. Nails, spikes, and tacks—	54. Molded,
21. Barbed and indented,	56. Screw-attached.
14. Double-ended,	37. Rivets—
15. Glaziers' points,	38. Divided,
28. Heads—	39. Double-clench,
29. Pronged,	40. Hollow.
12. Horseshoe-nails,	41. Screws—
23. Locking devices—	43. Countersinking,
26. Point-spreaders,	42. Double-ended,
24. Rail-flange,	44. Drive,
25. Rail-tread,	45. Driving-contacts,
27. Transverse-key,	46. Threads—
19. Longitudinally-ribbed,	47. Interrupted,
13. Multiple-pronged,	48. Rolled.
30. Points—	49. Staples.
31. Deflecting,	50. Washers—
11. Sheet-metal,	52. Ornamental,
20. Spiral-shank,	51. Removable.
18. String-nails,	
16. Tacks—	
17. Strips,	



# DIVISION XIII.—CONTINUED.

## CLASS 90.—GEAR-CUTTING, MILLING, AND PLANING. (XIII.)

(For definitions see Supplement No. 2, p. 2550.)

### Subclasses.

- |                             |                              |
|-----------------------------|------------------------------|
| 1. Gear-cutting—            | Planing—                     |
| 2. Intermeshing generator,  | Planers—                     |
| 8. Reciprocating cutter—    | Reciprocating-bed—           |
| 10. Template-guide,         | 35. Rack-drive,              |
| 9. Tooth-curve generating,  | 36. Screw-drive,             |
| 3. Rotating cutter—         | Reciprocating-cutter—        |
| 7. Axially-traveling,       | 38. Horizontal—              |
| 5. Bevel-gears,             | 40. Crank-drive,             |
| 6. Blank-pillar and cutter- | 39. Oscillating link         |
| slide,                      | drive,                       |
| 4. Helical gears.           | 41. Rack-drive,              |
| 56. Indexing—               | 42. Screw-drive,             |
| 57. Index-heads.            | 43. Vertical—                |
| 11. Milling—                | 44. Crank-drive—             |
| 16. Adjustable cutter-axis— | 45. Inverted,                |
| 17. Angular,                | 46. Rack-drive—              |
| Movable cutter-axis—        | 47. Inverted,                |
| 14. Axial,                  | 48. Reversing mechanisms,    |
| 15. Lateral,                | 49. Tool-feeds—              |
| 12. Pattern-controller,     | 50. Clutch-boxes,            |
| 13. Portable—               | 51. Stop mechanisms,         |
| 12.5. Valve-refitting,      | 52. Tool-heads—              |
| 20. Stationary cutter-axis— | 55. Cutter-lifters,          |
| 19. Rotating work-holder,   | 53. Oscillating double       |
| 21. Vertical,               | cutter,                      |
| 23. Tail-stocks,            | 54. Pivoted cutter re-       |
| 21. Work-feeds—             | lease,                       |
| 22. Backlash-compensa-      | 25. Soft-metal—              |
| tors.                       | 26. Cylindrical stereotypes, |
| 24. Planing—                | 27. Double-rack cutter-      |
| 33. Broaching,              | drive,                       |
| Curved surfaces—            | 28. Roller-feed.             |
| 30. Cycloids,               | 59. Work-holders—            |
| 31. Laterally-moving cut-   | 60. Machine-vises—           |
| ter,                        | 61. Angularly-adjustable     |
| 32. Laterally-moving work,  | jaws.                        |
| 29. Roll-grooving,          | 58. Work-tables.             |
| Planers—                    |                              |
| 34. Reciprocating-bed—      |                              |
| 37. Cross-rails,            |                              |

## CLASS 205.—METAL-DRAWING. (XIII.)

(For definitions see Bulletin No. 6, p. 8.)

### Subclasses.

- |                      |                             |
|----------------------|-----------------------------|
| 22. Appliances—      | Tube-welding—               |
| 23. Tags,            | 10. Laterally-movable draw- |
| 24. Tongs.           | head,                       |
| 3. Bars and tubes—   | 12. Processes.              |
| 7. Backing-mandrel,  | 16. Wire—                   |
| 4. By thrust,        | 17. Covering—               |
| 5. Hydraulic-drive,  | 18. Processes,              |
| 8. Processes,        | 20. Drawing-drums,          |
| 6. Screw-drive.      | 19. Lubricating,            |
| 25. Die-holders.     | 13. Multiple-die—           |
| 26. Dies—            | 14. Tandem,                 |
| 27. Skelping,        | 15. Rotary,                 |
| 28. Welding,         | 21. Processes.              |
| 29. Wire.            | 1. Miscellaneous.           |
| 9. Tube-welding—     | 2. Processes.               |
| 11. Die and mandrel, |                             |

## CLASS 78.—METAL FORGING AND WELDING. (XIII.)

(For definitions see Bulletin No. 10, p. 4.)

### Subclasses.

- |                             |                            |
|-----------------------------|----------------------------|
| 1. Forging—                 | Forging—                   |
| 5. Anvils—                  | Power hammers and          |
| 7. Attachments—             | presses—                   |
| 8. Vises,                   | 14. Pipe-swaging,          |
| 6. Special work,            | 34. Revolving-hammer,      |
| 3. Anvil-vises—             | 35. Screw-operated,        |
| 4. Foot,                    | 15. Sbrinking,             |
| 9. Billet-piercing—         | 36. Sliding-head—          |
| 10. Fixed mandrel,          | 37. Adjustable guides,     |
| 12. Processes,              | 38. Cam-operated,          |
| 11. Rotary mandrel or bil-  | 39. Crank-operated—        |
| let,                        | 40. Cushioned,             |
| 60. Dies—                   | 41. Toggle-operated,       |
| 64. Carriage-irons—         | 16. Spoke-securing,        |
| 65. Axles and axle-boxes,   | 19. Traveling,             |
| 66. Clips and shackles,     | 17. Upsetting,             |
| 67. Fifth-wheels,           | 81. Processes,             |
| 68. King-bolts,             | 46. Riveting—              |
| 70. Eyebars and eyebolts,   | 47. Calking,               |
| 72. Leather-workers' irons, | 48. Machines—              |
| 68.5. Plow and cultivator   | 51. Pipe,                  |
| irons,                      | 52. Plate-clamping,        |
| 73. Railway-car irons—      | 53. Rotating-tool,         |
| 74. Axles and axle-boxes,   | 49. Special,               |
| 75. Draw-bars and coup-     | 50. Work-supported,        |
| plings,                     | 54. Riveted joints,        |
| 76. Railway-track irons,    | 55. Tire-upsetting—        |
| 77. Spinners' and weavers'  | 56. Circumferential,       |
| irons,                      | 57. Pivoted-clamp—         |
| 78. Springs and spring-     | 58. Single-lever,          |
| clips,                      | 59. Sliding-clamp,         |
| 79. Turnbuckles,            | 45. Tootbed articles.      |
| 61. Upsetting—              | 103. Mandrels.             |
| 62. Heading bars,           | 82. Welding—               |
| 63. Tubular articles,       | 92. Processes—             |
| Wheels,                     | 95. Blooms,                |
| 13. Power hammers and       | 94. Dissimilar metals,     |
| presses—                    | 94. Rings and tubes,       |
| 44. Anvils,                 | 90. Rolling,               |
| 18. Cushioned elements,     | 83. Tubes—                 |
| 25. Die-inclosed work,      | 84. Cross-weld—            |
| 26. Drop—                   | 85. Rolling,               |
| 27. Cam-lift—               | 89. End-closing,           |
| 28. Sliding-head,           | 87. Rolling—               |
| 29. Crank-lift,             | 88. Rolls and mandrel,     |
| 30. Friction-lift,          | 86. Spiral-weld,           |
| 31. Winding-lift,           | 91. Welding strips.        |
| 42. Fluid-operated,         | 96. Work-handling mechan-  |
| Hammer-anvil—               | ism—                       |
| 21. Cam-operated—           | 99. Blank-feeding,         |
| 22. Adjustable dies,        | 98. Feeding and rotating,  |
| 23. Helved,                 | 100. Shifting,             |
| 31. Helved—                 | 101. Supports—             |
| 32. Crank-operated,         | 102. Tables,               |
| 33. Olivers,                | 97. Wire or strip feeding. |
| 24. Multiple-hammer,        |                            |

## CLASS 80.—METAL-ROLLING. (XIII.)

(For definitions see Bulletin No. 5, p. 3.)

### Subclasses.

- |                               |                               |
|-------------------------------|-------------------------------|
| 5. Annular bodies.            | Mills—                        |
| 22. Axial-rolling—            | 32. Colling,                  |
| 23. Pattern-rolls.            | 35. Continuous—               |
| 42. Cooling-beds.             | 36. Inclined trains,          |
| 18. Concave and roll.         | 37. Loop-return,              |
| 3. Cutting and rolling.       | 40. Idle rolls,               |
| 24. Die-rolling—              | 34. Three or more coacting    |
| 29. Advancing and receding    | rolls,                        |
| rolls,                        | 39. Three-high,               |
| 26. Blank feeding and gaging, | 33. Work-reversing.           |
| 27. Continuous,               | 1. Miscellaneous.             |
| 25. Oscillating rolls,        | 19. Platen and roll.          |
| 30. Recurrent-pattern,        | 20. Platen-rolling—           |
| 28. Three or more coacting    | 21. Disk platens.             |
| rolls.                        | 60. Processes—                |
| 4. Drawing and rolling.       | 66. Flanged bars,             |
| 43. Feeding—                  | 65. Reworking,                |
| 51. Guides and conductors—    | 63. Rods and wires,           |
| 52. Loop-return,              | 61. Screw-threads,            |
| 53. Work-rotating,            | 62. Tubes.                    |
| 44. Tables—                   | 17. Reworking.                |
| 45. Horizontally and verti-   | 56. Roll adjustments—         |
| cally movable,                | 57. Relief devices.           |
| 46. Horizontally-movable,     | 41. Roll cooling and heating. |
| Shifters—                     | 58. Rolls—                    |
| 49. Horizontally and verti-   | 59. Pass arrangement.         |
| cally movable car-            | 6. Screw-threads—             |
| rier,                         | 7. Concave and roll,          |
| 50. Swinging carrier,         | 8. Platen-rolling—            |
| 47. Vertically-movable.       | 9. Dies,                      |
| 54. Gearing.                  | 10. Rods and wires.           |
| 2. Heating and rolling.       | 11. Tubes—                    |
| 55. Housings.                 | 13. Axial-rolling,            |
| Mills—                        | 12. Idle rolls,               |
| 38. Auxiliary supporting-     | 14. Segmental rolls,          |
| rolls,                        | 15. Skelping,                 |
|                               | 16. Wheels and disks.         |

# DIVISION XIII.—CONTINUED.

## CLASS 76.—METAL TOOLS AND IMPLEMENTS. MAKING

(XIII.)

(For definitions see Bulletin No. 15, p. 6.)

### Subclasses.

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 101. Blanks and processes—        | 47. Saw-making—                     |
| 102. Augers,                      | 48. Dressing and jointing—          |
| 103. Axes, hammers, and hatchets, | 49. Circular saw,                   |
| 104. Cutlery—                     | 50. Compressing,                    |
| 105. Forks and spoons,            | 51. Rotary tool,                    |
| 106. Hollow handles,              | 46. Dressing, jointing, and gaging, |
| 107. Dies,                        | 75. Feeding—                        |
| 108. Drills,                      | 76. Clamp-feed,                     |
| 109. Hoes, mattocks, and picks,   | 77. Tooth-engaging feed,            |
| 110. Keys,                        | 81. Gages,                          |
| 111. Pitchforks and rakes,        | 74. Guides,                         |
| 112. Saws,                        | 58. Setting—                        |
| 113. Shovels,                     | 73. Anvil set,                      |
| 114. Wrenches.                    | 70. Pivoted set—                    |
| 82. Cutting sharpeners—           | 65. Idle,                           |
| 84. Butchers' steels,             | 63. Lever-operated—                 |
| 88. Cutter and guide—             | 64. Pliers,                         |
| 89. Disk,                         | 61. Multiple,                       |
| Multiple cutter—                  | 62. Trip,                           |
| Converging—                       | 59. Rotary set,                     |
| Disks,                            | Sliding set—                        |
| Rotary,                           | 70. Idle,                           |
| Skate.                            | 68. Lever-operated—                 |
| 90. Dies—                         | 69. Pliers,                         |
| Augers,                           | 66. Multiple,                       |
| Axes, hammers, and hatchets,      | 67. Trip,                           |
| Cutlery,                          | 59. Screw-operated set,             |
| Forks and spoons,                 | Spring set,                         |
| Drills,                           | 71. Swage set,                      |
| 72. Hoes, mattocks, and picks,    | 72. Sharpener and gum-              |
| 30. Pitchforks and rakes,         | ring—                               |
| 31. Pliers and tongs,             | 30. Die-cutting,                    |
| 34. Shovels,                      | Reciprocating tool—                 |
| 36. Wrenches.                     | Clamp-feed,                         |
| 32. File-cutting—                 | 31. File holders and guides,        |
| 35. Beds and clamps,              | 32. Gin-saws,                       |
| 20. Cutter-heads,                 | 33. Tooth-engaging feed,            |
| 22. Feeding—                      | Traveling tool-car-                 |
| 23. Screw-operated,               | riage,                              |
| 17. Idle cutter, hammer-op-       | 37. Rotating tool—                  |
| erated—                           | 45. Disks and cutters,              |
| Blow-controlled,                  | 44. Milling,                        |
| Pressers,                         | 40. Pivoted gate,                   |
| Processes,                        | 42. Pivoted saw-car-                |
| 13. Rasp-punching,                | riage,                              |
| 14. Swaging,                      | 41. Sliding gate,                   |
| 15. Trip-operated cutter—         | 43. Sliding saw-car-                |
| Blow-controlled.                  | riage,                              |
| 38. Spiral,                       | 39. Switch-cam feed,                |
| 39. Stretching—                   |                                     |
| Hammer,                           | 26. Hammer,                         |
| Roller,                           | 27. Roller,                         |
| Swaging—                          | 51. Swaging—                        |
| Anvils,                           | 57. Anvils,                         |
| Cam-swage,                        | 54. Cam-swage,                      |
| Idle swage,                       | 55. Idle swage,                     |
| Pivoted swage—                    | 52. Pivoted swage—                  |
| Lever-operated,                   | Lever-operated,                     |
| Sliding swage—                    | 53. Sliding swage—                  |
| Lever-operated.                   | Lever-operated.                     |
| Tools,                            | 56. Tools,                          |
| Tooth-forming—                    | 30. Tooth-forming—                  |
| Chisel-cutting,                   | 28. Chisel-cutting,                 |
| Die-cutting,                      | 29. Die-cutting,                    |
| 20. Tooth-insertors.              | 80. Tooth-insertors.                |

## CLASS 29.—METAL-WORKING. (XIII.)

(For definitions see Bulletin No. 15, p. 11.)

### Subclasses.

- |  |   |
|--|---|
| 84. Assembling—                            | 159. Blanks and processes—              |
| 85. Axle, pin, and collar                  | 160. Gears, pulleys, tires, and wheels, |
| 86. Fluid-operated,                        | 161. Grilles,                           |
| 87. Spoked wheels,                         | 162. Knobs and knob-                    |
| 88. Staking watches and clocks,            | shanks,                                 |
| 89. Work-holders.                          | 163. Lined pipes and tanks,             |
| 143. Blanks and processes—                 | 164. Musical vibrators,                 |
| 149. Beams and rails, mechanically capped, | 165. Railway-car irons—                 |
| 150. Braces and brackets,                  | 166. Axles,                             |
| 151. Bridge-irons,                         | 167. Couplings and draw-                |
| 152. Carriage-irons—                       | bars,                                   |
| 154. Axle boxes and skeins,                | 168. Wheels,                            |
| 153. Axles,                                | 169. Railway-track irons,               |
| 155. Columns and girders,                  | 170. Spinners' and weavers' irons—      |
| 156. Ferrules, rings, and thimbles,        | 171. Spinning-rings,                    |
| 157. Gas and water fittings—               | 172. Spring-head clips,                 |
| 158. Traps,                                | 173. Springs,                           |
|  | 174. Spoked wheels,                     |

## CLASS 29.—Continued.

- |   |  |
|---|--|
| Blanks and processes—                               | Machine-chucks and tool-                     |
| 175. Turnbuckles,                                   | sockets—                                     |
| 176. Velocipede-irons,                              | Cam-closing—                                 |
| 177. Watches and clocks—                            | Scroll—                                      |
| 178. Arbors, plions, and balances,                  | 128. Conical,                                |
| 179. Cases, crowns, and pendants.                   | 125. Worm and worm-wheel,                    |
| 90. Burnishing.                                     | 108. Eccentric,                              |
| 33. Combined machines—                              | 107.5. Indexed work-grips,                   |
| 57. Attachments,                                    | 146. Indicators,                             |
| 65. Carriage stop mechanisms,                       | 147. Jaws,                                   |
| 34. Forging, bending, cutting, and punching,        | 129. Lever-closing—                          |
| 35. Forging and rolling,                            | 130. Cone,                                   |
| Multiple-tool holder—                               | 131. Toggle,                                 |
| 52. Axial tool and transversely-movable slide-rest— | 139. Longitudinal screw-clamp,               |
| 53. Rotary tool-spindle,                            | 109. Self-aligning,                          |
| 51. Laterally-movable stock-holder,                 | 145. Sockets—                                |
| 54. Longitudinally and transversely movable—        | 141. Detent,                                 |
| 55. Rotary tool-spindle,                            | 142. Multiple,                               |
| 56. Oscillating tool,                               | 144. Split,                                  |
| 64. Speed-controllers,                              | 143. Wedge,                                  |
| 58. Stock and blank feeders—                        | 110. Tang-end drive,                         |
| 59. Advancing stock-support,                        | 140. Transversely-oscillating jaw,           |
| 60. Magazine,                                       | 132. Transverse screw-closing—               |
| 61. Reciprocating gripper—                          | 135. Opposite coupled jaws—                  |
| 62. Sleeve,   | 137. Interlocking,                           |
| 63. Roller,   | 133. Radial screw-jaw—                       |
| Turret—   | 134. Bevel pinion and ring,                  |
| Blank-turret,                                       | 138. Transverse wedged jaw.                  |
| Multiple turret,                                    | 66. Metal-breakers.                          |
| Stock-turret,                                       | 180. Metal stock—                            |
| Tool-turret—  | 181. Compound—                               |
| Cam-operated—                                       | 182. Bars and tubes,                         |
| Longitudinal turret-axis,                           | 186. Piles and fagots—                       |
| Transverse turret-axis,                             | 183. Box and scrap,                          |
| Fluid-operated,                                     | 184. Parallel bars—                          |
| Lever-operated,                                     | 185. Railroad-rails,                         |
| Rack-and-pinion operated,                           | 185. Tubular,                                |
| Rotary tool-holder,                                 | Processes—                                   |
| Screw-operated,                                     | 188. Compound bars and tubes,                |
| Sliding tool-holder,                                | 189. Compound plate,                         |
| Turrets,  | 187. Tube and plate, interlocked joint.      |
| Turret rotating and locking—                        | 1. Miscellaneous.                            |
| Frictional and positive,                            | 91. Reels—                                   |
| Positive,   | 92. Coil-stripping,                          |
| Type of machine—                                    | 93. Retractable arm,                         |
| Drill-press,  | 94. Revolving coiler,                        |
| Lathe—  | 67. Sawing—                                  |
| Grinding attachment,                                | 68. Band-saw,                                |
| Pulley and wheel,                                   | 69. Circular saw—                            |
| Planer,   | 70. Multiple,                                |
| Vise, drill, etc.—                                  | 71. Rim-driven,                              |
| Anvil-attached.                                     | 72. Oscillating saw,                         |
| Cutters—  | 73. Reciprocating saw—                       |
| Inserted blade—                                     | 75. Hand-driven,                             |
| Angular adjustment,                                 | 74. Vertical.                                |
| Arc,  | 81. Scale removers and preventers.           |
| Lateral offset,                                     | Sharpening—                                  |
| Multiple,   | 82. Edge-serrating,                          |
| Vertical offset,                                    | 83. Swaging.                                 |
| Lubricators,  | Special work—                                |
| Profiled circular blade,                            | 2. Battery-grid making,                      |
| Rotary—   | 3. Buckle-making,                            |
| Gang,   | 4. Button-fastener making,                   |
| Inserted tooth.                                     | 4.5. Communiting metal,                      |
| 76. Filing—   | 5. Cotter-pin making,                        |
| 77. File-blank strippers,                           | 6. Crank-shaft making,                       |
| 78. Files and rasps—                                | 7. Eyebolt and hook making,                  |
| 79. Holders,  | 8. Finger-ring forming and sizing,           |
| Sectional.  | 9. Fish-hook making,                         |
| 107. Machine-chucks and tool-sockets—               | 10. Gem and jewel setting,                   |
| Bevel-closing—                                      | 11. Hinge making and assembling,             |
| Advancing jaw,                                      | 12. Lacing-stud making,                      |
| Axial thrust-screw,                                 | 13. Paper-fastener making,                   |
| Axial thrust-screw,                                 | 14. Flow and cultivator irons, making,       |
| Receding jaw,                                       | 15. Puddlers' balls, working,                |
| Rotating ring—                                      | 16. Railway-chair making,                    |
| Advancing jaw,                                      | 17. Sheet-metal and foil manufacture—        |
| Screw-cap—  | 18. Processes—                               |
| Conical,  | 19. Pack manipulation,                       |
| Screw-ring—   | 20. Spectacle-frame making,                  |
| Advancing jaw,                                      | 21. Stereotype-plate finishing,              |
| Receding jaw,                                       | 22. Tire upsetting, cutting, punching, etc., |
| Sliding ring,                                       | 23. Toothed-cylinder making,                 |
| Cam-closing—  | 23.5. Turbine-blade making,                  |
| Scroll—   | 24. Type finishing and grooving,             |
| Bevel pinion and ring,                              | 25. Umbrella-frame making,                   |

# DIVISION XIII.—CONTINUED.

## CLASS 163.—NEEDLE AND PIN MAKING. (XIII.)

(For definitions see Bulletin No. 6, p. 8.)

### Subclasses.

- |                          |  |
|--------------------------|--|
| 1. Needle-making—        | 8. Assorting and packaging needles and pins. |
| 2. Knitting-needles—     | 6. Pin-making—                               |
| 3. Tongued,              | 7. Safety-pins.                              |
| 5. Processes,            |  |
| 4. Rotary blank-carrier. |  |

## CLASS 82.—TURNING. (XIII.)

(For definitions see Supplement No. 2, p. 2537.)

### Subclasses.

- |                             |                                      |
|-----------------------------|--------------------------------------|
| 11. Axial pattern—          | Lathes—                              |
| 12. Pivoted tool-rest,      | 3. Multiple,                         |
| 13. Profiled cutter,        | 4. Portable,                         |
| 14. Templet-guide.          | 7. Pulley,                           |
| 45. Centerers—              | 5. Screw-cutting—                    |
| 46. Cam-closing,            | 5.5. Swinging feed-nut and tool-bar, |
| 47. Coupled V-jaws,         | 31. Tail-stocks,                     |
| 48. Hollow-cone,            | 8. Wheel and axle.                   |
| 49. Pivoted lever and cone, | 1. Miscellaneous.                    |
| 50. Pivoted link.           | 18. Pattern-section—                 |
| 2. Lathes—                  | 19. Cam-controlled cutter.           |
| 34. Attachments,            | Rests—                               |
| 32. Beds,                   | 36. Tool—                            |
| 6. Bench,                   | 37. Tool-posts,                      |
| 21. Carriage-feeds—         | 35. Tool and work,                   |
| 22. Apron mechanism—        | 38. Work—                            |
| 23. Feed-nut controllers,   | 39. Center-rests.                    |
| 26. Change-gears,           | Tapers—                              |
| 27. Feed screws and rods,   | 15. Offset work-axis,                |
| 24. Slide-rests—            | Transversely-shifted cutter—         |
| 25. Multiple tool-support,  | 16. Gear-controlled,                 |
| 33. Centers,                | 17. Templet-controlled.              |
| 9. Crank and crank-pin—     | 40. Work-drivers—                    |
| 10. Oscillating work,       | 41. Lath-dogs—                       |
| 28. Head-stocks—            | 42. Cam-grip,                        |
| 29. Speed-changing gear,    | 43. Mandrels—                        |
| 30. Spindles and bearings,  | 44. Expansible                       |
| 20. Hollow cutter-head,     |                                      |



# DIVISION XIV.

EXAMINER MAXSON.

CLASSES. 7, Compound Tools; 164, Cutting and Punching Sheets and Bars; 168, Farriery; 153, Metal-Bending; 201, Metal-Ornamenting; 113, Sheet-Metal Ware: Making; 81, Tools; 140, Wire-Working.

## CLASS 7.—COMPOUND TOOLS. (XIV.)

(For definitions see Supplement No. 1, p. 2583.)

Subclasses.	
Type—	
15. Holders—	
16. Pivoted tools.	
1. Miscellaneous—	10. Miner's candlestick,
2. Integral.	7. Monkey-wrench,
Type—	3. Pliers—
12. Crowbar,	4. Modified handles—
14. Fork,	5. Pivoted auxiliary
8. Hammer—	tools,
9. Fixed-form,	11. Pocket-knife,
13. Handsaw,	6. Scissors.

## CLASS 164.—CUTTING AND PUNCHING SHEETS AND BARS. (XIV.)

(For definitions see Supplement No. 2, p. 2545.)

Subclasses.	
1. Buttonholes—	Cutting—
3. Knives,	Machines—
2. Machines,	Reciprocating-cutter—
4. Pliers—	Draw-cut—
5. Modified scissors,	55. Separately-oper-
6. Scissors attachments.	ated clamp,
11. Combined machines—	56. Fluid-operated,
13. Die cutting and punch-	59. Gages,
ing,	57. Lever-operated,
14. Pivoted knife-carrier,	50. Notched-work,
15. Reciprocating knife-car-	52. Separately - operated
rier,	clamp,
16. Roller-cutter and punch,	48. Work-feeding—
12. Work-feeding.	49. Roller-feed,
17. Cutting—	60. Rotary-cutter—
18. Die—	63. Curved platework,
29. Dies—	70. Cutters,
31. Adjustable-face,	64. Notched-work,
33. Blank-ejecting,	69. Rotary work-man-
32. Multiple concentric,	drel,
30. Spiral-strip-cutting,	65. Slitters and wind-
Machines—	ers,
23. Reciprocating cross-	66. Transverse—
head—	68. Work-feeding—
24. Shifting dies,	67. Printing - press
25. Reciprocating plun-	attachments,
ger—	61. Work-feeding—
26. Lever-operated,	62. Reciproca ting
27. Screw-operated,	feeder,
28. Roller-die,	71. Sweep-cutter—
20. Work-feeding—	72. Elliptical work,
Reciprocating	73. Traveling-cutter car-
feeder,	riage—
22. Roller-feed,	74. Motor-driven cut-
80. Implements—	ter—
81. Pliers,	75. Reciprocating,
82. Sweep,	76. Rotary,
83. Traveling—	77. Roller-knife.
84. Roller-cutter,	Expanded metal—
34. Machines—	6.5. Reciprocating,
35. Band-knife,	6.6. Rolling.
78. Cutting-tables—	7. Fence-barbs—
79. Work-clamping,	8. Cutters and dies—
36. Fixed-cutter—	9. Roller,
37. Spiral-strip,	10. Processes.
38. Work-feeding—	10.5. Printers' leads.
39. Roller-feed,	85. Punching—
40. Oscillating aperture d	119. Implements—
cutters,	120. Pivoted handles—
41. Pivoted-cutter—	121. Pliers—
44. Lever-operated—	122. Turret,
46. Compound - lever-	123. Traveling-roller,
age,	86. Machines—
45. Work-clamping,	118. Dies and die-holders,
43. Transverse,	87. Feeding and punch-
42. Work-feeding,	ing—
47. Reciprocating-cutter—	88. Reciprocating-feed,
51. Automatic-clamp,	89. Roller-feed,
58. Cutters and bed-	116. Feed mechanisms—
blocks,	117. Reciprocating,
53. Draw-cut—	90. Gang—
54. Automatic-clamp,	91. Lever-operated—
	92. Foot,

## CLASS 164—Continued.

Punching—	Punching—
Machines—	Machines—
Gang—	Roller—
93. Pattern,	99. Printing-press at-
94. Hammer,	tachments,
95. Hydraulic,	100. Screw-operated,
96. Lever-operated—	101. Shaft-driven—
97. Foot,	102. Safety devices,
98. Printers' rules,	104. Stop devices—
111. Punch-selector—	105. Shaft-clutch,
112. Keyboard-con-	103. Stroke adjustments,
trolled—	103. Tilting-frame,
113. Electrically-op-	110. Strippers and hold-
erated,	downs,
114. Pattern-con-	109. Tie-band tongue,
trolled—	108. Tube,
115. Electric ally-op-	125. Processes,
erated,	124. Punches.

## CLASS 168.—FARRIERY. (XIV.)

(For definitions see Bulletin No. 17, p. 36.)

Subclasses.	
29. Calks—	Shoes—
30. Creeper-sections,	17. Fastenings—
31. Removable—	18. Boots,
32. Bolt,	19. Clamped sections,
33. Bolt and lug,	20. Inclined-flange,
34. Clamped,	23. Nails and screws,
35. Dovetailed,	21. Side spurs,
36. Hooked lug and pin,	22. Toe and heel straps,
37. Hooked lug and wedge,	6. Hoof-spreading—
38. Nail-calks,	7. Hinged sections—
Tenoned—	8. Spring,
39. Button-head,	9. Stretching-bar,
40. Cross-pinned,	10. Wedge,
41. Friction,	5. Ox,
42. Screw-threaded,	24. Shape,
43. Wedged.	25. Weights.
1. Overshoes—	26. Sole-pads—
2. Medicating,	28. Elastic,
3. Swamp.	27. Medicating.
44. Shoeing-stands.	45. Tools—
4. Shoes—	46. Calk-sharpeners,
11. Auxiliary tread-plate,	47. Hoof and shoe expanders,
12. Cushioned—	48. Hoof cleaners and trim-
16. Interference-pads,	mers,
13. Soft-tread—	49. Nail-clenchers.
14. Sole-pad,	
15. Spring-heels,	

# DIVISION XIV.—CONTINUED.

## CLASS 153.—METAL-BENDING. (XIV.)

(For definitions see Supplement No. 1, p. 2603.)

### Subclasses.

- |  |  |
|--|--|
| 11. Angular—   | 32. Curving or straightening—                              |
| 12. Combined reciprocating bender and pivoted side-shaper, | 62. Boiler-formers,  |
| 13. Combined reciprocating bender and sliding side-shaper, | 33. Combined reciprocating bender and pivoted side-shaper, |
| 15. Pivoted bender—  | 34. Combined reciprocating bender and sliding side-shaper, |
| 16. Bed-clamped work—                                      | 63. Flexible cores,  |
| 17. Multiple side—   | 37. Flier-frame,   |
| 18. Inclosed forms,  | 39. Pivoted bender—  |
| 19. Rotary,  | 40. Bender-attached work—                                  |
| 20. Bender-attached work,                                  | 41. Beading and curving,                                   |
| 21. Reciprocating bender—                                  | 42. Beading or tube-forming,                               |
| 25. Bed-clamped work—                                      | 43. Traveling bed,   |
| 26. Rotary,  | 44. Opposing jaws,   |
| 27. Rotary bending-head,                                   | 45. Sweep-arm—   |
| 22. Inclosed forms,  | 46. Stationary clamped work,                               |
| 23. Pan-shaped dies,                                       | 47. Variable die-face,                                     |
| 24. Screw-operated,  | 48. Reciprocating bender—                                  |
| 28. Roll—  | 50. Automatic bend-detector,                               |
| 29. Flanging—  | 49. Inclosed forms,  |
| 31. Pivoted table,   | 52. Laterally-traveling,                                   |
| 30. Tinnern's rolls.                                       | 53. Screw-operated,  |
| 9. Beading and crimping rolls.                             | 51. Variable die-face,                                     |
| 1. Binding and covering—                                   | 54. Roll—  |
| 1.5. Shoe-lace tipping.                                    | 56. Angle-bar—   |
| 64. Coiling—   | 57. Sectional rolls,                                       |
| 65. Shunt-guide,   | 58. Barrel-shaped,   |
| 66. Spiral die,  | 59. Edge-curling,  |
| 67. Traveling guide or mandrel.                            | 61. Inclosed-work releasing,                               |
| 2. Combined operations—                                    | 55. Hoop,  |
| 3. Angular bending and curving—                            | 60. Skewed,  |
| 4. Pivoted bender—   | 35. Stretching,  |
| 5. Changeable former,                                      | 38. Three-point jacks,                                     |
| 6. Angular bending and twisting,                           | 36. Traveling flexible core.                               |
| 7. Curving and corrugating—                                | 10. Miscellaneous.   |
| 8. Hammer-action.  | Pipe expanders and flangers—                               |
| 68. Corrugating—   | 79. Non-traveling—   |
| 74. Bed and cylinder,                                      | Internal—  |
| 75. Pivoted bender,  | 80. Segmental expander,                                    |
| 76. Reciprocating bender,                                  | Traveling—   |
| 77. Roll,  | 81. Rotary—  |
| 69. Tubes—   | Internal—  |
| 69.5. Elbow-bending,                                       | 82. Wedge-feed.  |
| 70. Longitudinal bend,                                     | 78. Twisting.  |
| 71. Spiral bend—   |  |
| 72. Roll,  |  |
| 73. Transverse bend.                                       |  |

## CLASS 201.—METAL-ORNAMENTING. (XIV.)

(For definitions see Bulletin No. 13, p. 3.)

### Subclasses.

- |                          |                        |
|--------------------------|------------------------|
| 3. Die-pressing—         | 2. Nurling.            |
| 6. Dies and die-holders, | Stippling—             |
| 5. Roller and bed,       | 7. Reciprocating tool, |
| 4. Roller-die.           | 8. Rotary tool.        |
| 1. Miscellaneous.        |                        |

## CLASS 113.—SHEET-METAL WARE. MAKING (XIV.)

(For definitions see Bulletin No. 12, p. 8.)

### Subclasses.

- |                                    |  |
|------------------------------------|--|
| Bottle-capping—                    | Soldering—   |
| 2. Die—                            | Cans—  |
| 3. Fillers and forcers,            | Cap—   |
| 4. Sectional,                      | Rotary chuck—  |
| 5. Rotary tool,                    | 86. Rotary table-carrier,                                |
| 6. Strap-compressor.               | 87. Rotary tool—   |
| 7. Can-making machines—            | 88. Endless-chain carrier,                               |
| 8. Body-forming and side-seaming—  | 89. Rotary table-carrier,                                |
| 11. Blank-feeding,                 | 90. Shifting tray,                                       |
| 9. Soldering—                      | 91. Tipping,   |
| Blank-feeding,                     | 80. Cap-preparing, solder-affixing, and gasket-applying, |
| 30. Head-applying—                 | 67. Head-seam—   |
| 31. Sectional guide,               | 68. Axial rolling,                                       |
| Head feeding and applying—         | 78. Bath,  |
| Body-feeding—                      | 79. Flame,   |
| 26. Chute,                         | Rotary chuck—  |
| 27. Endless-chain carrier,         | 69. Bath,  |
| 28. Rotary drum-carrier,           | Endless-chain carrier—                                   |
| 29. Rotary table-carrier,          | 72. Bath,  |
| Head-seaming—                      | 73. Flame,   |
| 16. Die—                           | 74. Soldering-iron,                                      |
| 17. Axial rolling,                 | 70. Flame,   |
| 18. Sectional,                     | Rotary table-carrier—                                    |
| 14. Feeding and applying,          | 75. Bath,  |
| 15. Rip-seam making,               | 76. Flame,   |
| 19. Roller—                        | 77. Soldering-iron,                                      |
| Rotary chuck—                      | 71. Soldering-iron,                                      |
| 22. Laterally-rocking tool-holder, | 60. Side-seam—   |
| 20. Pattern-controlled tool—       | Endless-chain carrier—                                   |
| 21. Automatic clutch,              | 61. Bath,  |
| 23. Stationary seaming-tool,       | 62. Soldering-iron,                                      |
| Stationary chuck—                  | 63. Reciprocating carrier,                               |
| Rotary seaming-tool—               | Rotary table-carrier—                                    |
| 24. External,                      | 64. Bath,  |
| 25. Internal,                      | 65. Flame,   |
| 13. Soldering,                     | 66. Soldering-iron,                                      |
| 12. Side-seaming.                  | 99. Clamps—  |
| 38. Die-shaping—                   | 104. Adjustable arms,                                    |
| 43. Combined machines,             | 103. Expanding mandrel,                                  |
| 42. Cutting—                       | 102. Pipe,   |
| 42.5. Shoe-shank stiffeners,       | 101. Trough,   |
| 39. Dental,                        | 100. Vessel,   |
| 49. Dies and die-holders,          | 98. Coolers,   |
| 46. Drawing,                       | Flux-feeders—  |
| 50. Ejectors,                      | 95. Liquid,  |
| 48. Expanding die,                 | 96. Solid,   |
| 40. Eyelets,                       | 92. Heat and pressure,                                   |
| 44. Fillers and forcers,           | 105. Irons—  |
| 45. Fluid-operated,                | Capping—   |
| 40.5. Lacing-studs,                | 106. Heaters—  |
| 51. Processes,                     | 107. Electric,   |
| 47. Roller and concave,            | 108. Solder-feeding,                                     |
| 41. Rolling hollow bodies.         | 109. Processes,  |
| 1. Miscellaneous.                  | 112. Solder-feeders—                                     |
| 32. Pens and penholders.           | 93. Liquid,  |
| 116. Processes.                    | 94. Solid,   |
| Seaming-machines—                  | 110. Solder forms,                                       |
| Compressing—                       | 111. Tools and appliances,                               |
| 57. Die,                           | 97. Wipers.  |
| 58. Roller,                        | 52. Spinning—  |
| 54. Compressing and folding—       | 53. Carriage-feed, pattern-controlled.                   |
| 55. Roofers' carriages,            | 33. Tube-making—   |
| 56. Roofers' tongs,                | 34. Side-seam compressing,                               |
| 59. Soldering—                     | 35. Spiral seaming,                                      |
| Cans—                              | Transverse seaming—                                      |
| 81. Cap—                           | 36. Die,   |
| 82. Hermetic,                      | 37. Roller.  |
| Rotary chuck—                      | 113. Work-feeders—                                       |
| 83. Flame, endless-chain carrier,  | 115. Can-body,   |
| 84. Stationary tool—               | 114. Cap and head.                                       |
| 85. Endless-chain carrier,         |  |



# DIVISION XIV.—CONTINUED.

## CLASS 81.—TOOLS. (XIV.)

(For definitions see Supplement No. 4, p. 2989.)

### Subclasses.

15. Bending.		Wrenches—
13. Bolt-holders.		Hand-grip—
9. Collar-removers.	78.	Pivoted-jaw—
2. Combined wrenches and pumps or oilers.	79.	Crossed handles—
1. Miscellaneous.	80.	Non-traveling fulcrum—
10. Nut-lock.	81.	Pivoted grip-plug-piece,
11. Pin-removers—		Sliding gripping-piece,
12. Pliers.	82.	Slotted fulcrum-guide,
187. Pipe and rod cutters—	83.	Linked jaw and handle,
206. Jaw attachments,	84.	Sliding-jaw—
188. Non-traveling, internal,	85.	Claw-lever and rack,
Pivoted—	86.	Lever and cam feed,
Can,	87.	Lever and link feed,
196. Handle-jaws,	88.	Lever and pawl feed,
197. Intergear handles,	89.	Handles and shanks,
198. Toggle,	71.	Inserted—
199. Sliding—	72.	Expanding,
201. Can,	186.	Jaw-faces,
202. Head and socket,	54.	Machine—
203. Lever and link,	55.	Bolt-holding—
204. Rack and segment,	56.	Gear-operated,
189. Traveling, external—	57.	Gear-operated,
190. Gear-operated,	91.	Multiple pivoted jaws, handle-lever grip,
191. Thread-feed—	92.	Pivoted inner jaw—
192. Rotary-handle,	93.	Nut or screw fulcrum,
193. Traveling, internal—	94.	Pin-fulcrum—
194. Rotary—	95.	Roller-jaw—
195. Wedge-feed.	96.	Pinion,
43. Pliers and tongs—	97.	Spring-pressed,
47. Crossed handles—		Pivoted outer jaw—
48. Adjustable-pivot,	98.	Fixed fulcrum—
50. Parallel jaws,	99.	Non-traveling-jaw—
49. Pivoted jaw-piece,	100.	Spring-pressed,
51. Spring-pressed,	101.	Traveling-jaw—
44. Expanding,	102.	Nut-fulcrum,
52. Jaw attachments,	103.	Rocking-sleeve—
45. Locked jaws,	104.	Spring-pressed—
46. Sliding-jaw.	105.	Fulcrum-washer,
3. Special—		Sleeve-inclosed nut,
4. Engravers' clamps,	106.	Traveling fulcrum—
5. Tweezers,	110.	Fulcrum tooth and rack,
6. Watchmakers'—	109.	Slotted-guide,
7. Jewel-setters,	107.	Threaded handle-bar—
7.5. Mainspring-winders,	108.	Axially-rotating,
8. Ruby-pin setters.	111.	Pivoted side-jaw—
13.5. Tube inserters and extractors.	112.	Bevel-closing—
14. Tweezers.	113.	Axial nut or screw,
17. Vises—	115.	Rotating-ring,
18. Hand,	114.	Screw-ring,
38. Jaw attachments—	116.	Wedge,
39. Round work,	117.	Rocking-link,
40. Wedge-shaped work,	118.	Transverse-screw clamp,
41. Mounts,	178.	Reversible jaws,
32. Nut-operated,	119.	Rigid jaws—
42. Parallel mechanisms,	121.	Inclosed—
21. Pivoted jaw—	122.	Watch and clock keys—
23. Adjustable-fulcrum—	123.	Dust-protectors,
24. Rack,	124.	Safety,
25. Cam,	125.	Work-holding,
22. Wedge-shaped work,	120.	Round work,
27. Rack-lock—	129.	Sliding adjustments—
30. Pivoted rack-catch,	130.	Rack—
31. Sliding rack-catch,	131.	Interlocking jaw-handles,
28. Toothed-nut—	132.	Locking set screw or nut,
19. Sectional,	133.	Pinion-lock,
29. Round work,	134.	Pivoted rack-catch—
33. Screw-operated—	138.	Cam-seated,
36. Displaceable nut or screw,	139.	Indirectly-operated,
37. Interrupted-thread,	140.	Intermediate-fulcrum,
34. Multiple-intergearing,	135.	Non-traveling—
35. Right and left threads,	136.	Intermediate-fulcrum,
26. Sliding-jaw, cam,	137.	Transverse,
20. Turret.	141.	Shank-engaged cam,
53. Wrenches—	142.	Sliding rack-catch—
180. Attachments and adjuncts—	143.	Cam-seated,
181. Cutters—	144.	Screw or nut seated,
182. Rotary,	145.	Spring-seated,
183. Roller-clutch,	146.	Spring-seated jaw-frame—
184. Shank-embracing,	147.	Integral frame and teeth,
185. Socket-reducers,	148.	Wedge-lock—
58. Clutched-head—	149.	Wedge-pusher,
60. Ratchet—		
61. Pivoted-pawl—		
62. Reversing—		
63. Single,		
59. Segmental,		
77. Double-ended, simultaneous adjustment,		
64. Flexible—		
66. Link—		
67. Claw,		
68. Handle-jaw—		
70. Duplex,		
69. Pivoted,		
65. Threaded adjustment,		

## CLASS 81.—Continued.

Wrenches—		Wrenches—
Sliding adjustments—		Sliding adjustments—
Shank-grip—		Thread—
150. Clutch-yoke,	172.	Non-traveling screw—
152. Locking incline,	163.	Shank-sleeved,
154. Roller-clutch,		Right and left threads,
153. Side-jaw,	164.	Rotating threaded shank,
151. Thread—	165.	Sliding side-jaw,
156. Displaceable half-nut,	173.	Traveling-nut—
157. Displaceable nut or screw—	174.	Threaded handle-bar,
158. Traveling-screw, shank-rack,	175.	Traveling-screw—
159. Interrupted—	176.	Shank-rack,
160. Nut-set—	128.	Sliding-jaw, cam-closing,
161. Traveling-nut,	179.	Sliding-jaw face,
162. Traveling-screw, shank-rack,	126.	Sliding-jaw, handle-lever grip—
Non-traveling nut—	127.	Claw,
Intermediate—	90.	Spanners,
166. Sliding outer-jaw,	73.	U-crank arm,
167. Terminal—	74.	Wheel-operated—
169. Sliding outer-jaw,	75.	Hub-rim grasp—
170. Non-traveling screw—	76.	Internal.
171. Bracket-bearing,		

## CLASS 140.—WIRE-WORKING. (XIV.)

### Subclasses.

31. Attaching card-clothing.		Fabrics—
1. Barbing—		Working.
12. Sheet-metal,	20.	Feeding and tension.
22. Tools.	13.	Heddles, making.
3. Bending.	14.	Joining.
4. Bending and coiling.	15.	Reels and spools.
5. Bending and twisting.	16.	Tools.
6. Coiling—	24.	Winding.
26. By mandrel, definite length,	17.	Wiring—
27. By mandrel, indefinite length,	18.	Bottles and corks,
8. Cutting and straightening.	19.	Brushes and cards,
9. Fabrics—	11.	Wood—
10. Making—	28.	Fences—
32. Coiled,	29.	Gear,
33. Twisted,	30.	Rack-bar,
	23.	Sprocket,
		Fencing.

# DIVISION XV.

EXAMINER STAUFFER.

CLASSES.—107, Bread, Pastry, and Confection Making; 91, Coating; 44, Fuel; 49, Glass; 222, Hydraulic Cement and Lime; 154, Laminated Sheets and Fabrics; 92, Paper-Making; 94, Paving; 95, Photography; 25, Plastic Block and Earthenware Apparatus; 106, Plastic Compositions; 18, Plastics.

## CLASS 107.—BREAD, PASTRY, AND CONFECTION MAKING. (XV.)

(For definitions see Bulletin No. 12, p. 3.)

### Subclasses.

- |   |                                       |
|---|---------------------------------------|
| 55. Bakers' ovens—                          | Implements—                           |
| 64. Attachments,                            | 50. Rolling-pins.                     |
| 67. Bakers' peel,                           | 7. Miscellaneous.                     |
| 56. Charging and removing devices—          | 30. Mixers, kneaders, and beaters—    |
| 57. Endless-carrier—                        | 31. Aerating,                         |
| 58. Automatic pans or forms,                | 32. Moving-receptacle—                |
| 59. Reel,                                   | 33. Rotating,                         |
| 60. Rotary-hearth,                          | 34. Roller,                           |
| 65. Doors,                                  | 35. Compound-rotation,                |
| 63. Fluid-circuit or indirect heating,      | 36. Multiple—                         |
| 66. Forming and baking plates,              | 37. Hand-supported, ,                 |
| 62. Knockdown or separable,                 | 41. Single—                           |
| 61. Wagon-ovens.                            | 40. Hand-supported,                   |
| 44. Cleaning apparatus.                     | 40. Horizontal,                       |
| 4. Combined machines—                       | 39. Oscillating,                      |
| 6. Cutting and distributing,                | 42. Single reciprocating-dasher.      |
| 5. Printing and cutting lozenges.           | 8. Molding apparatus—                 |
| 1. Composite cake and confection apparatus. | 14. Die-expressing,                   |
| 20. Cutting apparatus—                      | 9. Loaf-forming,                      |
| 21. Knife—                                  | 19. Molds,                            |
| 22. Circular,                               | 15. Presses—                          |
| 24. Reciprocating-die—                      | 16. Popcorn,                          |
| 25. Dough-feeding,                          | 17. Tablet—                           |
| 26. Internal plunger,                       | 18. Stationary-mold,                  |
| 23. Rotary-die.                             | 10. Rolling—                          |
| 27. Depositing apparatus—                   | 13. Axial,                            |
| 28. Valve cut-off—                          | 11. Pills,                            |
| 29. Transversely-reciprocating.             | 12. Sheeting.                         |
| 47. Implements—                             | 46. Pastry-boards.                    |
| 51. Cutters,                                | 54. Processes.                        |
| 52. Depositors,                             | 2. Shredded cereal biscuit apparatus. |
| 48. Ice-cream dishes,                       | 43. Sizing and salting apparatus.     |
| 53. Mixers, kneaders, and beaters,          | 45. Stacking and packing apparatus.   |
| 49. Pie crimpers and trimmers,              | 3. Starch-molding apparatus.          |

## CLASS 91.—Continued.

- |                                     |                                  |
|-------------------------------------|----------------------------------|
| Machines—                           | Processes—                       |
| 43. Fountain—                       | 70. With heat—                   |
| 44. Projection—                     | 71. Japanning,                   |
| 45. Air-brush,                      | 72. Vitreous—                    |
| 29. Fountain and roller,            | 73. On metal.                    |
| 30. Fountain and scraper,           | Special machines—                |
| 23. Fountain, roller, and web,      | 1. Bordering letter-paper,       |
| 46. Immersion,                      | 2. Confections and pills—        |
| 31. Immersion and roller,           | 3. Fountain,                     |
| 32. Immersion and scraper.          | 4. Immersion—                    |
| 24. Immersion, roller, and scraper, | 5. Chargers,                     |
| 47. Impression,                     | 6. Dipping implements,           |
| 48. Roller—                         | 7. Rumble,                       |
| 49. Fountain-feed,                  | 8. Flocking,                     |
| 50. Roller-feed,                    | 9. Marbling,                     |
| 51. Tank-feed,                      | 10. Photographic film and plate, |
| 33. Roller and scraper,             | 11. Pitching casks,              |
| 34. Roller and web,                 | 12. Stripping.                   |
| 52. Rumble,                         | 58. Strippers.                   |
| 53. Scraper,                        | 59. Wipers and dusters.          |
| 35. Scraper and web,                | 60. Work-holders—                |
| 54. Web.                            | 61. Enameling-tables,            |
| 57. Mixers and stirrers.            | 62. Gripper mechanisms.          |
| 68. Processes—                      |                                  |
| 69. Photographic film and plate,    |                                  |

## CLASS 44.—FUEL. (XV.)

### Subclasses.

- |                   |                    |
|-------------------|--------------------|
| 1. Artificial.    | 3. Peat-machines.  |
| 2. Fire-kindlers— | 4. Purifying coal. |
| 5. Absorbers,     |                    |
| 6. Automatic.     |                    |

## CLASS 91.—COATING. (XV.)

(For definitions see Bulletin No. 13, p. 9.)

### Subclasses.

- |                                 |                                    |
|---------------------------------|------------------------------------|
| 13. Combined machines—          | Machines—                          |
| 14. Coating and cutting.        | Brush—                             |
| 15. Coating and folding.        | 39. Fountain-feed,                 |
| 16. Coating and printing.       | 40. Roller-feed,                   |
| 17. Coating and stretching.     | 41. Tank-feed,                     |
| 55. Driers and coolers.         | 25. Brush and fountain,            |
| 56. Elevating devices.          | 19. Brush, fountain, and roller,   |
| Implements—                     | 20. Brush, fountain, and scraper,  |
| 63. Brush holders and cleaners, | 26. Brush and immersion,           |
| 64. Painters' hooks,            | 21. Brush, immersion, and roller,  |
| 65. Paint-protectors,           | 22. Brush, immersion, and scraper, |
| 66. Pots,                       | 27. Brush and roller,              |
| 67. Sanders.                    | 28. Brush and web,                 |
| 18. Machines—                   | 42. Centrifugal,                   |
| 36. Abrasion,                   |                                    |
| 37. Brush—                      |                                    |
| 38. Capillary feed,             |                                    |



# DIVISION XV. CONTINUED.

## CLASS 49.—GLASS. (XV.)

(For definitions see Bulletin No. 13, p. 4.)

### Subclasses.

- |                             |                                 |
|-----------------------------|---------------------------------|
| 45. Annealing—              | Molding—                        |
| 46. Furnaces—               | 30. Curved pipes and tubes,     |
| 47. Conveying.              | 35. Presses—                    |
| 63. Batch-mixers.           | 38. Fluid-operated,             |
| 18. Blowing—                | 36. Screw-threading,            |
| 20. Manipulating blow-iron, | 37. Traveling mold,             |
| 21. Tools,                  | 33. Rolling—                    |
| 19. Traveling mold.         | 34. Bed and roller,             |
| 1. Combined machines—       | 31. Vertical pipes and tubes,   |
| 12. Casting and blowing—    | 32. Wire-glass.                 |
| 13. In separate molds,      | 65. Molds—                      |
| 5. Charging, cutting, and   | 67. Bending,                    |
| molding,                    | 69. Blowing—                    |
| 2. Incandescent-lamp mak-   | 70. Labeling,                   |
| ing,                        | 71. Vented,                     |
| 8. Pressing and blowing—    | 75. Clamping,                   |
| 11. Descending mold - bot-  | 68. Cooling and heating,        |
| tom,                        | 76. Cores and plungers,         |
| 9. In separate molds—       | 72. Pressing—                   |
| 10. Internal press-mold,    | 74. Helically-separable,        |
| 7. Reheating and reshaping, | 73. Laterally-separable         |
| 6. Shaping and cutting,     | sides,                          |
| 3. Sheet and plate making—  | 66. Uniting parts.              |
| 4. Flattening and anneal-   | 42. Mold-separating devices—    |
| ing.                        | 43. Drawing-core.               |
| 90. Compositions—           | 41. Mold supports and carriers. |
| 91. Enamel.                 | 28. Perforating.                |
| 48. Cutting hard glass—     | 16. Pin-heading.                |
| 51. Guides and gages,       | 77. Processes—                  |
| 50. Heat-applying,          | 89. Annealing,                  |
| 49. Lens-blanks,            | 83. Blowing,                    |
| 52. Tools.                  | 79. Combined—                   |
| 17. Drawing.                | 80. Molding and blowing,        |
| 44. Flattening.             | 88. Heat-developed coloring,    |
| 62. Gathering and lading.   | 78. Incandescent-lamp mak-      |
| 53. Heating apparatus—      | ing,                            |
| 61. Floats,                 | 85. Molding—                    |
| 60. Melting-pots,           | 87. Sheets and plates,          |
| 59. Pot-furnaces,           | 86. Wire-glass,                 |
| 57. Reheating-furnaces—     | 84. Reshaping,                  |
| 58. Work-manipulating,      | 81. Uniting parts—              |
| 54. Tank-furnaces—          | 82. Glass to glass.             |
| 55. Delivering,             | 22. Reshaping—                  |
| 56. Separate gathering-     | 26. Crimping,                   |
| pool.                       | 23. Neck-forming—               |
| 14. Miscellaneous—          | 24. Tools                       |
| 45. Tools.                  | 25. Divided mandrel,            |
| 40. Mold-coolers.           | 27. Spreading or flaring.       |
| 29. Molding—                | 64. Snaps and sockets.          |
| 39. Casting,                | 92. Structure.                  |

## CLASS 222.—HYDRAULIC CEMENT AND LIME. (XV.)

### Subclasses.

- |                 |            |
|-----------------|------------|
| 3. Kilns—       | Kilns—     |
| 5. Attachments, | 7. Rotary. |
| 6. Gypsum,      | 4. Lime.   |

## CLASS 154.—LAMINATED SHEETS AND FABRICS. (XV.)

### Subclasses.

- |                          |                          |
|--------------------------|--------------------------|
| 1. Apparatus—            | 2. Miscellaneous.        |
| 5. Tube and tire making. | 6. Processes—            |
| 4. Boiler-coverings.     | 7. Playing-ball making,  |
| 3. Felt.                 | 8. Tube and tire making. |
| 9. Linoleum.             |                          |

## CLASS 92.—PAPER-MAKING. (XV.)

### Subclasses.

- |                                |                               |
|--------------------------------|-------------------------------|
| Calenders—                     | 16. Parchment.                |
| 25. Bed and jack,              | Pulp-making—                  |
| 26. Damping devices,           | 51. Beating-engines,          |
| 27. Rotary.                    | 48. Bleaching,                |
| 24. Carpet-lining.             | 50. Chemical processes,       |
| 6. Disintegrating fibrous sub- | 49. Digesters,                |
| stances.                       | 39. Drainers,                 |
| 7. Fabrics.                    | 52. Rag-cutters,              |
| 8. Fibers.                     | 53. Refining-engines,         |
| 12. Ornamenting.               | 44. Stock-cleaners,           |
| 13. Paper-board.               | Strainers—                    |
| 15. Paper-making machines—     | 40. Rotary,                   |
| 28. Attachments,               | 41. Shaking,                  |
| 29. Couch-rolls,               | 42. Stationary,               |
| 30. Cylinder-machines,         | 43. Washers,                  |
| 31. Dandy-rolls,               | 54. Wood-grinders.            |
| 32. Felt and wire cleaners,    | Pulp-molding machines—        |
| 34. Fourdrinier machines,      | 45. Centrifugal,              |
| 35. Press rolls and felts,     | 46. Compressors,              |
| 55. Reels,                     | 47. Winders.                  |
| 36. Stuff-chests,              | 22. Waterproofing and sizing. |
| 37. Stuff-feeders,             |                               |
| 38. Suction boxes and rolls.   |                               |

## CLASS 94.—PAVING. (XV.)

### Subclasses.

- |              |                  |
|--------------|------------------|
| 2. Gutters.  | Pavements—       |
| 9. Mixers.   | 8. Wood.         |
| Pavements    | 4. Road-rammers. |
| 1. Concrete, | 6. Tools.        |
| 3. Iron,     | 7. Vault-covers. |
| 5. Stone,    |                  |

## CLASS 95.—PHOTOGRAPHY. (XV.)

(For definitions see Bulletin No. 5, p. 10.)

### Subclasses.

- |                             |                                |
|-----------------------------|--------------------------------|
| 10. Actinometers.           | Cameras—                       |
| 83. Backgrounds—            | Shutters—                      |
| 84. Rolling curtain.        | Pivoted—                       |
| 104. Burnishing—            | Blade—                         |
| 105. Rotary machines—       | 62. Opposite move-             |
| 106. Internally-heated.     | ment—                          |
| 11. Cameras—                | 63. Symmetrical                |
| 12. Combination,            | opening,                       |
| 43. Copying and enlarging,  | 61. Rotary,                    |
| 13. Developing—             | 55. Sliding—                   |
| 14. Automatic,              | 56. Opposite movement,         |
| 42. Exposure-lens finder,   | 18. Simultaneous-exposure,     |
| 44. Finders,                | 36. Successive plate-sec-      |
| 52. Focusing—               | tions—                         |
| 45. Adjusting mechanism,    | 37. Shifting lens or           |
| 46. Guides and locks,       | plate—                         |
| 47. Hoods,                  | 38. Rotary,                    |
| 39. Folding—                | 50. Swing front or back,       |
| 49. Hinged-base,            | 65. Vignettors.                |
| 49. Ground glasses and      | 86. Camera-supports—           |
| frames,                     | 87. Copy-holding.              |
| 19. Magazine—               | 2. Color.                      |
| 22. Flexible plate-carrier, | 3. Daguerreotypy—              |
| 20. Hand-changed plate,     | 4. Vises.                      |
| 27. Quarter-turned plate—   | 88. Developing.                |
| 28. Tilting—                | 89. Fluid-treating appa-       |
| 29. Base-guides,            | ratus—                         |
| 30. Rear-plate replacing,   | 90. Dark cabinets—             |
| 23. Sliding-plate—          | 91. Hand-insertion—            |
| 25. Continuous guides,      | 92. Ventilated,                |
| 26. Intermediate expo-      | 90.5. Roll-film,               |
| sure-chamber,               | 94. Film-guides,               |
| 24. Sliding and return,     | 99. Rocking mechanisms,        |
| 21. Tilting-magazine,       | 93. Rotating carriers,         |
| 15. Panoramic—              | 96. Tanks—                     |
| 16. Concave surface,        | 97. Washing—                   |
| 17. Convex surface,         | 98. Plate-supporting,          |
| Plate-holders—              | 95. Trays,                     |
| 72. Auxiliary,              | 100. Work-handling devices.    |
| 71. Closure locks and       | 1. Miscellaneous.              |
| checks,                     | 85. Models.                    |
| 67. Light-seals,            | 93. Printing—                  |
| 68. Plate-fastenings and    | 75. Continuous-film,           |
| kits—                       | 76. Fluid-pressure contact,    |
| 69. Adjustable,             | 77. Frames—                    |
| 70. Solution drains and re- | 77.5. Cylindrical,             |
| sistants,                   | 78. Stands,                    |
| 41. Plate-holder storage    | 74. Superposed negative,       |
| 48. Reversible-back,        | 79. Vignetting—                |
| 31. Roll-holding—           | 80. Frame-attaching            |
| 32. Folding—                | mechanisms.                    |
| 33. Hinged bellows,         | 5. Processes—                  |
| 34. Posterior rolls,        | 5.5. Vitreous colors.          |
| 35. Roll-spools,            | 101. Retouching—               |
| 51. Shift front or back,    | 102. Stands—                   |
| Shutters—                   | 103. Vibrating.                |
| 57. Curtain,                | 81. Screens.                   |
| 64. Diaphragms,             | 7. Sensitizing.                |
| 54. Fluid-operating mech-   | 6. Sensitizing and developing. |
| anisms,                     | 82. Studios.                   |
| 58. Pivoted—                | 8. Surfaces—                   |
| 59. Blade—                  | 9. Films.                      |
| 60. Blade and cover         |                                |
| blind,                      |                                |

# DIVISION XV.—CONTINUED.

## CLASS 25.—PLASTIC BLOCK AND EARTHENWARE APPARATUS. (xv.)

(For definitions see Bulletin No. 7, p. 3.)

### Subclasses.

41. Block-molding machines—
42. Flat tile,
43. Roofing-tile,
44. Undercutting.
45. Block-presses—
103. Chargers,
- Endless chain of molds—
99. Continuous travel,
100. Intermittent travel,
101. Expanding mold,
102. Plungers,
- Portable mold—
53. Mold-pushers,
- Movable support—
46. Toward feed,
47. Transverse to feed,
48. Supported in race—
49. Plunger—
50. Lever,
51. Pitman,
52. Rack and pinion,
54. Reciprocating mold—
55. Fluid-operated,
- Plunger—
56. In line of mold travel—
57. Cam,
58. Drop,
59. Lever,
60. Transverse to mold travel—
61. Cam,
62. Lever,
- Rotary mold—
64. Facial—
- Continuous—
65. Plunger, cam,
66. Intermittent—
67. Opposed plunger—
68. Lever,
69. Single-surface plunger—
70. Cam,
71. Drop,
72. Lever,
73. Pitman,
74. Toggle,
- Fluid-operated,
63. Peripheral—
- Continuous—
75. Opposed mold-wheel—
77. Mating,
78. Plunger, cam,
79. Pressure-roller,
80. Intermittent—
81. Plunger, cam,
82. Plunger, lever,
- Stationary mold—
83. Single-surface plunger—
85. Cam,
86. Drop,
84. Fluid-operated,
87. Lever,
88. Pitman,
89. Toggle,
90. Opposed plunger—
92. Cam,
93. Cam and lever,
94. Cam and pitman,
91. Fluid-operated,
95. Lever,
96. Pitman,
97. Toggle,
98. Toggle and connecting-bar,
104. Strikes and trimmers.
2. Brick-making plants.
105. Cutters—
114. Cleaners,
111. Oscillating,
107. Reciprocating—
108. Horizontally,
- Rotating—
109. Longitudinal axis,
110. Transverse axis,
106. Soap,
112. Stationary,
113. Tables.
11. Die-expressing—
12. Detached block,
17. Dies—
18. Liquid-lubricated,
20. Perforating and ornamenting,
19. Steam-lubricated,
15. Plunger-ejector—
16. Fluid-operated,
13. Pottery,
14. Screw-ejector.
3. Electrical-fixture machines.
132. Kilns—
140. Combined up and down draft—
141. Reversible,
134. Continuous—
139. Common flue,
136. Perforated floor,
137. Perforated partition,
135. Separate kiln,
138. Temporary partition,
145. Downdraft—
146. Muffle-bottom,
149. Fluid-fuel,
148. Forced-draft,
151. Furnaces—
152. Grates,
142. Horizontally-traveling material,
133. Indurating,
144. Muffle,
154. Processes—
155. Burning road-ballast,
153. Saggars,
150. Steam-combustion,
147. Updraft,
143. Vertically-traveling material.
4. Knob-machines.
1. Miscellaneous.
118. Molds—
119. Block—
120. Ejectors,
121. Expanding and separable,
122. Linings,
123. Ornamental,
- 131.5. Centering,
124. Cistern,
125. Fence,
126. Pipe—
128. Cores,
127. Expanding and separable,
129. Pottery,
130. Sarcophagi and tank,
131. Wall.
30. Pipe-machines—
36. Compacting-former,
31. Fluid-operated,
32. In situ,
33. Multitubular—
34. Perforators,
35. Perforating-former,
38. Plastic lining and coating,
39. Socket-formers,
37. Tamper,
40. Turners.
5. Playing-marble machines.
22. Pottery-machines—
29. Casting,
23. Fluid-operated,
24. Jiggers,
25. Irregular form,
26. Rotary former,
27. Presses—
28. Bottom ejectors.
11. Roller-forming.
115. Sanders—
116. Mold—
117. Rotary drum.
7. Soap-molding devices—
8. Die-expressing,
9. Rotary mold,
10. Stationary mold.
6. Tobacco-pipe machines.

## CLASS 106.—PLASTIC COMPOSITIONS. (xv.)

(For definitions see Bulletin No. 7, p. 8.)

### Subclasses.

22. Artificial ivory and hard rubber.
23. Artificial rubber.
24. Artificial stone—
35. Argillaceous,
31. Bituminous and resinous—
32. Tar,
33. Wax,
36. Gelatinous and gummy,
25. Hydraulic cement—
26. Argillaceous,
43. Treatment,
27. Indurating—
45. Treatment,
29. Oxychlorid and oxysulfate,
34. Plaster-of-paris,
28. Retarders,
30. Soluble silicates,
44. Treatment.
2. Battery-jars.
3. Boot heels and soles.
4. Cob pipes and fillings.
5. Crayons and pencils.
6. Dental.
12. Electrical insulating—
15. Bituminous and resinous—
16. Tar,
17. Wax,
13. Rubber,
14. Soluble silicates.
9. Fire-brick and refractory linings—
10. Argillaceous.
11. Fire-hardened—
42. Treatment.
7. Floor-cloth.
39. Gelatinous and gummy.
18. Heat-insulating—
21. Argillaceous,
20. Plaster-of-paris,
19. Soluble silicates.
8. Luting.
1. Miscellaneous—
41. Treatment.
38. Proteids—
46. Treatment.
37. Pyroxylin.
40. Viscose and cellulose.

## CLASS 18.—PLASTICS. (xv.)

(For definitions see Bulletin No. 10, p. 7.)

### Subclasses.

1. Miscellaneous apparatus—
3. Pyroxylin,
2. Vulcanizable gums.
5. Molding devices—
26. Casting—
27. Candles,
28. Crayons,
29. Rollers,
30. Chargers,
12. Die-expressing—
13. Compound,
14. Tube and hollow,
24. Dipping—
25. Capsule-machines,
8. Filament-forming,
15. Film-spreading,
32. Flasks and clamps—
33. Dental,
6. Heating and vulcanizing—
7. Pots,
34. Molds—
36. Blank covering and filling—
37. Lacing hooks and studs,
39. Casting—
40. Soap,
43. Clamping,
45. Cores—
46. Boot trees and lasts,
44. Dies and matrices,
41. Dipping,
38. Heating and vulcanizing,
47. Materials,
- Molding devices—
- Molds—
35. Sheet-shaping,
42. Two and three part,
31. Mold wiping and coating,
16. Presses—
17. Heating and vulcanizing—
18. Tire-repairing,
22. Reciprocating-mold,
20. Rotary mold-support—
21. Peripheral,
19. Sheet-shaping,
23. Stationary-mold,
9. Rolling—
11. Compound,
10. Sheets.
4. Molding plants.
- Processes—
54. Filament-forming,
48. Miscellaneous—
51. Pyroxylin,
49. Vulcanizable gums—
50. Caoutchouc,
55. Molding—
58. Casting and dipping,
57. Film-spreading,
56. Sheets,
59. Uniting,
52. Restoring caoutchouc,
53. Vulcanizing caoutchouc.
- 3.5. Puttying devices.



# DIVISION XVI.

EXAMINER W. A. KINNAN.

CLASSES.—178, Telegraphy; 179, Telephony.

## CLASS 178.—TELEGRAPHY. (XVI.)

### Subclasses.

3. Annunciators—	Telegraphs—
188. Drop,	45. Circuits and systems,
189. Drop systems,	299. Details,
190. Elevator,	47. Dial,
320. Extension or auxiliary bell-circuits,	48. Duplex,
321. Reed,	49. Dynamo,
191. Step-by-step—	50. Fire—
322. Clock-train,	160. Automatic,
323. Strength and polarity.	162. Engine-house apparatus,
12. Condensers.	163. Non-interfering,
28. Indicators.	165. Repeaters,
29. Keys.	164. Variable signal—
35. Morse registers.	161. Dial,
304. Relays—	103. Fire alarms and extinguishers,
305. Coil,	51. Multiplex,
306. Core-armature.	52. Perforating,
42. Repeaters.	54. Printing—
307. Sounders.	141. Multiple-wheel,
300. Superposed current.	142. Wheel,
Telegraphs—	55. Quadriplex,
297. Autographic,	63. Reed.
46. Automatic—	69. Transmitters.
298. Multiple-pen,	319. Wireless.
310. Successive-line,	

## CLASS 179.—TELEPHONY. (XVI.)

(For definitions see Bulletin No. 16, p. 12.)

### Subclasses.

174. Anti-induction devices.	Switchboards—
178. Details—	96. Spring-jack—
179. Casing,	97. Strips,
180. Dampers,	99. Substation,
181. Diaphragms,	98. Wire distribution.
182. Earpieces,	158. Switches—
183. Hoods,	159. Hook—
189. Locks,	166. Connectors,
187. Mouthpieces—	164. Gravity-lever,
188. Voice-screens,	163. Horizontal slide,
184. Protectors—	161. Obstruction—
185. Antiseptic,	162. Movable jaw,
186. Connections,	160. Selective line,
190. Resistance elements.	165. Vertical slide,
172. Induction-coils—	168. Mobile,
173. Multiple.	167. Receiver,
176. Listening and ringing keys—	169. Rotary contact.
177. Polystation-lines.	1. Systems—
171. Relays.	78. Anti-inductive—
170. Repeaters.	79. Condenser,
100. Sets.	80. Impedance,
146. Supports—	16. Automatic—
157. Body,	26. Auxiliary automatic exchange,
156. Head-gear,	23. Central energy,
153. Holder, transmitter-supported,	24. Combined rotary and non-rotary,
149. Pivoted-arm—	19. Lock-out—
150. Extension,	20. Central energy,
151. Slidable holders,	21. Combined rotary and non-rotary,
152. Transmitter,	22. Non-rotary,
147. Stands,	25. Non-rotary,
154. Suspension—	18. Percentage,
155. Reels,	17. Polystation-lines,
148. Vertical adjustment.	27.5. Selective switches,
91. Switchboards—	27. Semi-automatic,
92. Drop-restorers,	84. Call—
94. Lamp-annunciators,	88. Automatic,
95. Plug-seats, switches, and take-ups,	87. Reed,
93. Plug-shifters,	89. Return,

## CLASS 179.—Continued.

### Systems—

Call—	85. Step-by-step,
86. Strength and polarity,	90. Transmitters,
51. Central—	70. Centralized energy—
71. Line-signal control—	72. Spring-jack cut-off,
73. Relay cut-off,	74. Line-signal control—
75. Spring-jack cut-off,	76. Relay cut-off,
52. Multiple answering-jack,	53. Multiple switch-board—
54. Auxiliary,	55. Centralized energy—
56. Line-signal control—	57. Spring-jack cut-off,
58. Relay cut-off,	59. Plug-terminal—
60. Line-signal control—	61. Spring-jack cut-off,
62. Special test-plug,	63. Special test-plug—
64. Line-signal control—	65. Spring-jack cut-off,
66. Relay cut-off,	67. Centralized energy,
6. Combined telephone and phonograph,	2. Composite—
3. Telegraphy—	4. Metallic circuit,
5. Fire or police,	41. Divided central—
44. Automatic ringing,	50. Centralized energy.
48. Multiple switch-board—	49. Centralized energy,
42. Private branch exchange,	43. Reciprocal signaling-trunks,
45. Through-ringing—	46. Centralized energy,
37. House or intercommunicating—	38. Lock-out—
40. Centralized energy,	39. Central energy,
15. Multiplex,	28. Polystation-lines—
36. Central,	34. Centralized energy—
35. Central,	

### Systems—

Polystation-lines—	30. Lock-out—
33. Central,	31. Centralized energy—
32. Central,	29. Portable sets,
7. Register—	11. Automatic—
12. Central control,	8. Central—
9. Automatic—	10. Central control,
13. Central control,	14. Key and lock,
82. Space—	83. Radiophones,
81. Substation-circuits.	101. Telephones—
107. Audiphones,	102. Combined receiver and transmitter—
103. Hand,	105. Compound
106. Condenser,	111. Electrostatic,
112. Induction-coil,	108. Intensifiers—
109. Harmonic vibrators,	114. Magnetic—
115. Diaphragm—	116. Multiple,
117. Magnets—	118. Combined telephone and call,
119. Pole-pieces,	120. Tubular,
104. Micromagnetic,	110. Molecular,
113. Non-diaphragm.	175. Testing devices.
121. Transmitters—	138. Diaphragm—
139. Multiple,	140. Electrode—
141. Contact—	142. Gravity—
143. Hinged or pivoted,	144. Magnetic,
145. Spring,	122. Granular—
124. Electrode—	125. Embedded,
126. Plunger,	127. Pockets,
128. Projections,	129. Rotary,
130. Granules magnetic,	123. Multiple diaphragm,
131. Multiple electrode—	135. Differential,
133. Fluid—	134. Jet,
137. Multiple contact,	132. Multiple diaphragm,
136. Multiple series contact.	

# DIVISION XVII.

EXAMINER HENRY.

CLASSES.—192, Clutches; 199, Linotyping; 198, Matrix-Making; 151, Nut and Bolt Locks; 101, Printing.

## CLASS 192.—CLUTCHES. (XVII.)

### Subclasses.

- |   |  |
|---|--|
| 22. Ball.                               | 8. Longitudinally-movable, single-face.      |
| 1. Clutches.                            | 9. Longitudinally-movable, with projections. |
| 21. Dog.                                | 10. Multiple-disk.                           |
| 2. Eccentric or wedge.                  | 11. Radially-movable shoes.                  |
| 3. Expansible segment.                  | 12. Radially-movable shoes, opposing.        |
| 18. Fluid.                              | 20. Ratchet.                                 |
| 4. Frictional and positive.             | 13. Split-ring.                              |
| 5. Lever-shoe.                          | 14. Strap.                                   |
| 6. Locking-pawl.                        |  |
| 7. Longitudinally-movable, double-face. |  |

## CLASS 199.—LINOTYPING. (XVII.)

### Subclasses.

- |                           |                             |
|---------------------------|-----------------------------|
| Bar-machines—             | 3. Linotype-making.         |
| 5. Plural.                | 2. Linotypes.               |
| 6. Single.                | 9. Machine attachments.     |
| 14. Brushing devices.     | 12. Matrices.               |
| 7. Circulating-machines.  | 15. Melting-pots.           |
| 8. Guide-machines.        | 10. Miscellaneous machines. |
| 4. Justifying devices.    | 13. Molds and cutters.      |
| 16. Justifying mechanism. | 11. Rotary machines.        |

## CLASS 198.—MATRIX-MAKING. (XVII.)

### Subclasses.

- |   |   |
|---|---|
| 1. Bar.                                   | 5. Reciprocating die-carrier, mechanical. |
| 2. Dies.                                  | 6. Rotary die-carrier.                    |
| 7. Matrices and materials.                |   |
| 3. Miscellaneous.                         |   |
| 4. Reciprocating die-carrier, electrical. |   |

## CLASS 151.—NUT AND BOLT LOCKS. (XVII.)

(For definitions see Supplement No. 2, p. 2543.)

### Subclasses.

- |                             |                                   |
|-----------------------------|-----------------------------------|
| 2. Coupled nut and bolt—    | Locked nut—                       |
| 5. Cross-key—               | Base-clutch—                      |
| 6. Spring-seated,           | Biting-tooth—                     |
| 7. Elastic gripping action, | 37. Nut-carried,                  |
| 4. Flexible-key,            | 38. Friction,                     |
| 3. Flexible-washer,         | 39. Pawl-and-ratchet—             |
| 8. Longitudinal-key,        | 40. Nut-carried pawl,             |
| Pawl-and-ratchet—           | 41. Yielding interlocking washer, |
| 9. Bolt-carried pawl,       | 42. Distorted,                    |
| 10. Nut-carried pawl—       | 43. Gravity nut or washer,        |
| 11. Flexible,               | 44. Side-lock—                    |
| 12. Pivoted,                | 49. Flexible—                     |
| 13. Washer-carried pawl,    | 50. Automatic—                    |
| 14. Thread-lock—            | 51. Coiled washer,                |
| 19. Cam or cone grip,       | 52. Spring-tongued washer-plate,  |
| 20. Canted-nut,             | 53. Inelastic washer-tongue,      |
| 21. Distorted-nut,          | 54. Longitudinal—                 |
| 22. Distorted-thread,       | 55. Nut-held—                     |
| 23. Longitudinal-key,       | 56. Reversed-nut,                 |
| 24. Radial key or gib,      | 57. Side-pin,                     |
| 25. Side-clutch,            | 58. Spike-held,                   |
| 15. Superposed nuts—        | 59. Swinging,                     |
| 16. Oppositely-threaded—    | 60. Washer-tongue held,           |
| 17. Key or pawl locked,     | 48. Pawl-and-ratchet,             |
| 18. Side-locked,            | 45. Rotatable washer—             |
| 26. Tangential-key,         | 46. Bent-tongue locked,           |
| 27. Top-stop—               | 47. Pawl-locked,                  |
| 28. Positive-lock—          | 61. Transversely-sliding—         |
| 29. Side,                   | 62. Key, plate, or bar—           |
| 30. Thread-gripper,         | 63. Nut-held,                     |
| 31. Wedged slotted bolt.    | 64. Sliding-washer,               |
| 1. Flowing metal.           | 65. Transversely-swinging,        |
| 32. Locked bolt.            | 66. Transverse base-locking key.  |
| 33. Locked nut—             |                                   |
| 34. Base-clutch—            |                                   |
| 35. Biting-tooth—           |                                   |
| 36. Coiled-washer,          |                                   |

## CLASS 101.—PRINTING. (XVII.)

### Subclasses.

- |                                   |                                  |
|-----------------------------------|----------------------------------|
| 1. Address-printers—              | 27. Color-machines—              |
| 2. Strip-form.                    | 28. Graining.                    |
| 4. Bed - and - cylinder machines— | 26. Composing-sticks.            |
| 153. Bed-movements,               | 29. Deliveries—                  |
| 5. Cushions,                      | 30. Associators,                 |
| 153. Multirevolution—             | 31. Droppers,                    |
| 154. Perfecting,                  | 32. Fly-frames,                  |
| 6. Oscillating-cylinder—          | 33. Gripper-pliers,              |
| 7. Perfecting,                    | 34. Receiving-tables.            |
| 8. Perfecting,                    | 36. Feeding—                     |
| 155. Sliders,                     | 37. Gages—                       |
| 9. Stop-cylinder—                 | 38. Front stops,                 |
| 10. Perfecting,                   | 39. Separators—                  |
| 11. Traveling-cylinder—           | 40. Buckling,                    |
| 12. Perfecting,                   | 41. Pneumatic,                   |
| 13. Bed - and - platen machines—  | 42. Web.                         |
| 14. Inking attachment,            | 43. Folders—                     |
| 15. Oscillating—                  | 44. Longitudinal,                |
| 16. Roller-inker—                 | 45. Longitudinal and rotary,     |
| 17. Orbital,                      | 46. Newspaper-wrapping machines, |
| 18. Roller and plate inker,       | 152. Oscillating,                |
| 19. Stationary roller-inker,      | 47. Reciprocating,               |
| 20. Roller-inker,                 | 48. Rotary,                      |
| 21. Roller and plate inker,       | 49. Sheet-conveyers.             |
| 22. Tympan-gages,                 | 50. Furniture—                   |
| 23. Web.                          | 51. Quoins,                      |
| 24. Branding-stamps.              | 52. Tools and appliances.        |
| 25. Chases.                       | 53. Galleys—                     |
|                                   | 54. Galley-locks—                |
|                                   | 55. Rests.                       |



# DIVISION XVII.—CONTINUED.

## CLASS 101.—Continued.

- |                               |                                |
|-------------------------------|--------------------------------|
| 56. Hand-stamps—              | Rotary machines—               |
| 57. Check-punches.            | 120. Associators and folders,  |
| 58. Head and handle—          | 122. Machines and associ-      |
| 59. Inking attachment,        | tors,                          |
| 60. Mutilators,               | 123. Machines and deliveries,  |
| 61. Roller—                   | 125. Machines and folders,     |
| 62. Inking attachment.        | 124. Machines, associators     |
| 63. Inking attachment,        | and folders,                   |
| 64. Mutilators,               | 126. Non-perfecting,           |
| 188. Racks.                   | 127. Reversing and perfect-    |
| 66. Sealing-tools,            | ing,                           |
| 160. Settable-type carrier—   | 121. Rotary conical printing-  |
| 161. Inking attachment,       | couple.                        |
| 70. Tumbler.                  | 128. Ruling-machines—          |
| 181. Imitating.               | 129. Rotary.                   |
| 71. Inking apparatus—         | 130. Setting and distributing— |
| 73. Composition rollers, pre- | 203. Distributing—             |
| serving,                      | 189. Feeler-selector,          |
| 74. Fountains,                | 190. Keyboard,                 |
| 75. Pads and holders,         | 191. Type-arrangers,           |
| 76. Rollers—                  | 192. Type-line separators,     |
| 77. Compositions,             | 193. Ward-selector,            |
| 78. Traveling ductor-plate,   | 194. Leading and unloading,    |
| 79. Traveling roller and      | 195. Setting—                  |
| plate.                        | 196. Conveyer-feed,            |
| 80. Mail-marking machines—    | 197. Gravity-feed,             |
| 81. Rotary—                   | 198. Hand-supply,              |
| 82. Machines and stackers.    | 199. Justifiers,               |
| 83. Marking-machines—         | 200. Making and setting,       |
| 84. Rotary.                   | 201. Type-channels.            |
| 85. Multicolor-machines—      | 131. Sheet-stencils, making.   |
| 86. Bed-and-cylinder—         | 179. Spaces and straight col-  |
| 87. Multiple-impression,      | umn-rules.                     |
| 88. Bed-and-platen,           | 132. Stenciling-machines.      |
| 89. Rotary—                   | 133. Stencil-making pens.      |
| 90. Multiple printing-        | 134. Stencil-plates.           |
| couple,                       | Surfaces—                      |
| 91. Supplemental forms.       | 165. Backing apparatus,        |
| 183. Numbering-machines—      | 163. Elastic,                  |
| 184. Form attachments,        | 164. Fountain,                 |
| 185. Hand,                    | Holders—                       |
| 186. Measurers and markers.   | 167. Cylinder-mandrel,         |
| 96. Paper-damping ma-         | 168. Metal-sheet stretchers,   |
| chines—                       | 169. Miscellaneous,            |
| 97. Winders.                  | 166. Mechanical transferring   |
| 157. Phototypographs.         | and registering.               |
| 98. Planographic machines—    | 159. Multicolor,               |
| 99. Bed-and-cylinder,         | Planographic—                  |
| 172. Copying apparatus,       | Elastic pantographs,           |
| 180. Damping,                 | 170. Hectographic compo-       |
| 100. Rotary.                  | sitions,                       |
| 101. Plate.                   | 173. Miscellaneous,            |
| Plate-machines—               | 204. Photomechanical,          |
| 102. Bed-and-cylinder,        | Relief and intaglio—           |
| 103. Bed-and-platen,          | Backs and blocks,              |
| 104. Rotary,                  | 175. Combination,              |
| 105. Traveling-bed.           | 174. Integral metal type,      |
| 106. Press-copying—           | 178. Miscellaneous,            |
| 107. Damping.                 | 176. Non-elastic materials,    |
| 111. Printing-couple appli-   | 205. Photomechanical,          |
| cations—                      | 162. Tintographs.              |
| 112. Anti-offset devices,     | 187. Ticket-machines.          |
| 113. Blankets,                | 148. Traveling-bed machines.   |
| 156. Friskets,                | 149. Type-cases—               |
| 115. Grippers.                | 202. Feeding.                  |
| 182. Processes.               | 150. Type-machines.            |
| 117. Rotary machines—         |                                |
| 118. Associators—             |                                |
| 119. Stop-sheet,              |                                |

# DIVISION XVIII.

## EXAMINER GSANTNER.

CLASSES.—162, Injectors and Ejectors; 160, Steam and Vacuum Pumps; 122, Steam-Boilers; 121, Steam-Engines; 136, Steam-Engine Valves.

### CLASS 162.—INJECTORS AND EJECTORS. (XVIII.)

*No subclasses.*

### CLASS 160.—STEAM AND VACUUM PUMPS. (XVIII.)

*No subclasses.*

### CLASS 122.—STEAM-BOILERS. (XVIII.)

*Subclasses.*

- |                       |                                  |
|-----------------------|----------------------------------|
| 1. Attachments.       | 12. Introducing smoke and gases. |
| 5. Circulation.       | 33. Manholes.                    |
| 2. Cleaners—          | 13. Rotary.                      |
| 30. Steam or air jet. | 32. Safety devices.              |
| Condensers—           | 14. Sectional—                   |
| 35. Injector,         | 34. Headers.                     |
| 36. Surface.          | 15. Separators.                  |
| 22. Feeders.          | 16. Superheaters.                |
| 6. Fire-tube.         | 37. Traps—                       |
| 7. Flashers.          | 38. Expansion.                   |
| 8. Flue and tubular.  | 17. Tubes and flues.             |
| Heating feed-water—   | 4. Vapor-generators.             |
| 29. Furnace-gases,    | 27. Water-tube—                  |
| 20. Steam,            | 28. Coil.                        |
| 21. Steam-injected.   | 18. Water fire-box.              |
| 10. Incrustation.     |                                  |
| 11. Indicators.       |                                  |

### CLASS 121.—STEAM-ENGINES (XVIII.)

*Subclasses.*

- |                                |                              |
|--------------------------------|------------------------------|
| 105. Attachments—              | Multiple-expansion—          |
| 106. Cross-head.               | 31. Starting-valve,          |
| 2. Bell-ringer.                | 36. Tandem—                  |
| 1. Combined engine and boiler. | 37. Central-valve,           |
| 119. Compensating devices.     | 38. Double-acting—           |
| 117. Cylinder relief-valve.    | 39. Multiple-valve.          |
| 44. Diaphragm.                 | 41. Multiple-piston.         |
| 96. Exhaust mechanism.         | 42. Oscillating-cylinder.    |
| 95. Exhaust-regenerated.       | 43. Oscillating-piston.      |
| 19. Hammers—                   | 107. Packing—                |
| 20. Piston-hammer,             | 108. Piston,                 |
| 22. Stamp,                     | 109. Rod,                    |
| 21. Valveless.                 | 110. Steam-joint.            |
| 14. Locomotive—                | 104. Pistons.                |
| Compound—                      | 18. Portable.                |
| 15. Cross,                     | Pumping—                     |
| 16. Starting-valve             | 3. Compensating,             |
| 17. Tandem.                    | 4. Duplex—                   |
| 115. Lubricators.              | 5. Multiple-expansion,       |
| 116. Mufflers.                 | 6. Multiple-cylinder,        |
| Multiple-cylinder—             | 7. Multiple-expansion,       |
| 23. Longitudinal—              | 8. Single-cylinder—          |
| 24. Multiple-valve,            | 9. Trigger-valve.            |
| 25. Parallel,                  | 46. Reciprocating-cylinder.  |
| 26. Radial—                    | 10. Rock-drills—             |
| 27. Multiple-valve,            | 11. Piston-controlled valve, |
| 28. Tandem—                    | 12. Valveless.               |
| 29. Multiple-valve.            | 47. Rotary—                  |
| Multiple-expansion—            | 48. Alternating-piston,      |
| 32. Concentric-cylinder,       | 50. Collapsible-tube,        |
| 33. Cross—                     | 51. Geared-abutment—         |
| 34. Double-acting—             | 52. Compound,                |
| 35. Multiple-valve,            | 53. Multiple-cylinder,       |
|                                | 54. Geared-piston,           |

### CLASS 121.—Continued.

- |                           |                          |
|---------------------------|--------------------------|
| Rotary—                   | Rotary—                  |
| 55. Gravity,              | 82. Swinging-abutment—   |
| 56. Impact—               | 83. Compound,            |
| 57. Axial-flow,           | 84. Multiple-cylinder,   |
| 58. Compound,             | 85. Spring-operated,     |
| 59. Injector,             | 86. Steam-operated,      |
| 60. Radial-flow,          | 87. Swinging-piston—     |
| 61. Reaction,             | 88. Compound,            |
| 62. Reciprocating-piston— | 89. Multiple-cylinder,   |
| 63. Cam,                  | 90. Spring-operated,     |
| 64. Crank,                | 91. Steam-operated,      |
| 65. Rotary-cylinder—      | 92. Wabbling-piston—     |
| 66. Sliding-piston,       | 93. Disk,                |
| 67. Sliding-abutment—     | 94. Plane.               |
| 68. Compound,             | 45. Single-cylinder.     |
| 69. Multiple-cylinder,    | 111. Speed-governors—    |
| 70. Radial—               | 112. Centrifugal,        |
| 71. Piston-operated,      | 113. Marine,             |
| Sliding-piston—           | 114. Pressure,           |
| 73. Compound,             | 118. Turbine-control.    |
| 74. Corcentric—           | 13. Steering mechanism.  |
| 75. Cam-operated,         | 97. Valve-gear—          |
| 76. Longitudinal,         | 98. Link,                |
| 77. Steam-operated,       | 99. Rod,                 |
| 78. Eccentric—            | 100. Shifting-eccentric— |
| 79. Cam-operated,         | 101. Automatic—          |
| 80. Spring-operated,      | 102. Inertia,            |
| 81. Steam-operated,       | 103. Tripping cut-off.   |
| 72. Multiple-cylinder,    | 40. Valveless.           |

### CLASS 136.—STEAM-ENGINE VALVES. (XVIII.)

*Subclasses.*

- |                    |                     |
|--------------------|---------------------|
| 1. Balanced-slide— | 12. Reversing.      |
| 13. Double,        | 7. Rotary.          |
| 14. Roller.        | 9. Safety.          |
| 2. Cut-off.        | 8. Slide.           |
| 3. Gage-cocks.     | 10. Steam-actuated. |
| 4. Governor.       | 11. Throttle—       |
| 5. Piston.         | 15. Electric.       |
| 6. Puppet.         |                     |

# DIVISION XIX.

EXAMINER MOORE.

CLASSES.—236, Dampers: Automatic; 110, Furnaces; 237, Heat-Distributing Systems; 126, Stoves and Furnaces.

## CLASS 236.—DAMPERS. AUTOMATIC (XIX.)

### Subclasses.

- |                    |                    |
|--------------------|--------------------|
| 1. Balanced motor. | 6. Fluid-pressure. |
| 2. Draft-operated. | 7. Miscellaneous.  |
| 4. Electrical.     | 8. Pressure-motor. |
| 5. Expansion.      |                    |

## CLASS 110.—FURNACES. (XIX.)

(For definitions see Bulletin No. 18, p. 4.)

### Subclasses.

- |  |                                     |
|--|-------------------------------------|
| 165. Ash receiving and handling devices— | 24. Furnace structure—              |
| 166. Ash-pans—                           | 25. Coking—                         |
| 167. Dumping—                            | 26. Gas passing under grate,        |
| 168. Conjoined floor-sections,           | 3. Cremation,                       |
| 169. Reciprocating discharge-valve,      | 27. Double fire-box—                |
| 170. Scraper,                            | 28. Alternate smoke-return—         |
| 171. Steam and water attachments.        | 29. Over fire,                      |
| 173. Doors—                              | 30. Under fire,                     |
| 175. Feeding air,                        | 31. Downdraft,                      |
| 174. Feeding air and steam,              | 32. Feeding air—                    |
| 179. Fluid-screens,                      | 33. Fire-box—                       |
| 176. Operators—                          | 34. Double,                         |
| 177. Motor,                              | 35. Locomotive,                     |
| 178. Pedal,                              | 36. Hollow grate,                   |
| 180. Doors and casings—                  | 37. Horizontal base,                |
| 181. Cooling,                            | 38. Feeding air and steam—          |
| 182. Door casings and arches—            | 39. Boiler-controlled,              |
| 183. Feeding air,                        | 40. Fire-box—                       |
| 147. Draft-regulators—                   | 41. Bridge-wall arch,               |
| 163. Damper,                             | 42. Door and bridge-wall arch,      |
| 151. Exhaust-nozzle—                     | 43. Door-arch,                      |
| 155. Air-feed,                           | 44. Drop-arch,                      |
| 156. Shunt-pipe,                         | 45. Interstitial outlet,            |
| 152. Variable-discharge—                 | 46. Locomotive,                     |
| 153. Boiler-controlled,                  | 47. Superimposed—                   |
| 154. Exhaust-controlled,                 | 48. Intermediate draft,             |
| 149. External exhaust and blower,        | 49. Heaters—                        |
| 162. Fan-exhaust,                        | 50. Locomotive,                     |
| 164. Lift-pipe,                          | 51. Meeting furnace-gases,          |
| 148. Separation of gases,                | 52. Horizontal base,                |
| 150. Steam-injector,                     | 53. Time-limit,                     |
| 157. Smoke-box—                          | 54. Undergrate—                     |
| 158. Feeding air—                        | 55. Deflectors,                     |
| 159. Door-operated,                      | 56. Locomotive,                     |
| 160. Stack—                              | 57. Feeding steam—                  |
| 161. Air-jet—                            | 58. Fire-box,                       |
| 159. Steam-injected,                     | 59. Feeding steam and water—        |
| 159. Portable,                           | 60. Undergrate,                     |
| 172. Fronts.                             | 61. Feeding water,                  |
| 101. Fuel-feeders—                       | 62. Fine fuel burned in suspension, |
| 104. Blower—                             | 63. Fire-box—                       |
| 105. Hopper,                             | 64. Adjustable,                     |
| 106. Pulverizer,                         | 65. Bridge-wall arch,               |
| 103. Boiler-controlled,                  | 66. Door and bridge-wall arch,      |
| 107. Bridge-wall,                        | 67. Door-arch,                      |
| 116. Chute—                              | 68. Drop-arch,                      |
| 117. Door—                               | 69. Exterior, detachable,           |
| 118. Multiple-charge,                    | 70. Interstitial outlet,            |
| 108. Hopper—                             | 71. Locomotive,                     |
| 109. Pusher—                             | 72. Superimposed—                   |
| 109. Reciprocating,                      | 73. Intermediate draft,             |
| 110. Screw,                              | 74. Gas or oil and solid fuel,      |
| 111. Spreader—                           | 75. Gas-producer,                   |
| 112. Carrier—                            | 76. Grateless,                      |
| 113. Door,                               | 77. Horizontal base,                |
| 114. Oscillating,                        | 78. Horizontal cylindrical boiler,  |
| 115. Reciprocating-plunger,              | 79. Magazine—                       |
| 102. Rotary,                             | 80. Cage-grate,                     |
| 102. Shavings and sawdust,               | 81. Multiple series,                |
| 118. Vertical-draft,                     | 82. Progressive-feed—               |
| 1. Furnace structure—                    | 83. Grate—                          |
| 99. Arches,                              | 84. Boiler-controlled,              |
| 2. Automobile,                           | 85. Chain—                          |
| 97. Baffles and heat-retainers—          | 86. Bridge-wall feed,               |
| 98. Water-tube boilers,                  |                                     |
| 100. By-pass flue,                       |                                     |

## CLASS 110.—Continued.

### Furnace structure—

- |                                     |                                |
|-------------------------------------|--------------------------------|
| Progressive-feed—                   | 42. Grate—                     |
| Chain—                              | 43. Locomotive,                |
| 44. Multiple fuel,                  | 45. Raking-bar,                |
| 37. Reciprocating-bar,              | 46. Rocking-bar,               |
| 39. Rotary—                         | 47. Horizontal axis,           |
| 35. Vertical axis,                  | 48. Underfeed—                 |
| 44. Center-feed—                    | 49. Continuous,                |
| 45. Separate charges,               | 50. Progressive-feed grate—    |
| 46. Double,                         | 51. Single,                    |
| 47. Refuse—                         | 52. Brush, portable,           |
| 48. Stubble,                        | 53. Stump,                     |
| 19. Reversible draft,               | 54. Smoke and gas return—      |
| 21. Before passing hoiler-flues—    | 55. From fire-box,             |
| 51. Locomotive,                     | 56. Straw burners and feeders— |
| 50. Fire-hox, exterior, detachable, | 57. Wet-fuel—                  |
| 6. Fuel-support above grate,        | 58. Garbage and sewage—        |
| 17. Closed retort,                  | 59. Dry closets,               |
| 8. Drying-conveyer,                 | 60. Reverberatory platform,    |
| 11. Reversible draft,               |                                |
| 49. Smoke and gas return—           |                                |
| 51. Before passing hoiler-flues—    |                                |
| 52. From fire-box,                  |                                |
| 50. Locomotive,                     |                                |
| 51. Straw burners and feeders—      |                                |
| 6. Fire-hox, exterior, detachable,  |                                |
| 7. Wet-fuel—                        |                                |
| 17. Fuel-support above grate,       |                                |
| 8. Garbage and sewage—              |                                |
| 11. Closed retort,                  |                                |
| 9. Dry closets,                     |                                |
| 15. Drying-conveyer,                |                                |
| 12. Reverberatory platform,         |                                |

### Furnace structure—

- |                                  |                                    |
|----------------------------------|------------------------------------|
| Wet-fuel—                        | 13. Rotary grate, vertical axis,   |
| Garbage and sewage—              | 14. Rotary retort,                 |
| 10. Steam-boiler,                | 15. Underfeed.                     |
| 183. Smoke-purifiers.            | 184. Smoke-stacks.                 |
| 119. Spark-arresters—            | 121. Combined stack and smoke-box, |
| 120. Furnace-conductor,          | 122. Smoke-box—                    |
| 129. Discharge-valve,            | 123. Divided,                      |
| 127. Draft-regulator,            | 128. Ejector,                      |
| 125. Hood,                       | 126. Vertical-drum,                |
| 128. Water-receptacle,           | 130. Stack—                        |
| 133. Annular receptacle—         | 134. Conductor,                    |
| 135. Central discharge downward, | 136. Central discharge upward,     |
| 131. Feeding air,                | 141. Heads, symmetrical,           |
| 132. Return-current,             | 137. Rotary haffle,                |
| 138. Spiral baffle, stationary—  | 139. Separator,                    |
| 142. Steam or water spray,       | 140. Tangential separator,         |
| 143. Water-receptacle,           | 144. Water-receptacle.             |
| 145. Spark and smoke conductors— | 146. Train.                        |

## CLASS 237.—HEAT-DISTRIBUTING SYSTEMS. (XIX.)

### Subclasses.

- |                    |                              |
|--------------------|------------------------------|
| 1. Air—            | 11. Train—                   |
| 2. Steam or water. | 12. Smoke,                   |
| 3. Car—            | 13. Steam,                   |
| 4. Air,            | 14. Water—                   |
| 5. Steam,          | 15. Steam.                   |
| 6. Water.          | 16. Water—                   |
| 7. Local—          | 17. Steam.                   |
| 8. Air,            | 18. Pipe-hangers.            |
| 9. Steam,          | 19. Steam-radiators—         |
| 10. Water.         | 20. Attachments,             |
| 11. Steam.         | 21. Heat-diffusing elements. |
| 12. Train—         |                              |
| 13. Air,           |                              |

## CLASS 126.—STOVES AND FURNACES. (XIX.)

(For definitions see Bulletin No. 20, p. 6.)

### Subclasses.

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| 242. Ash discharge and collecting—   | 281. Dough-raisers—                |
| 243. Ash-pans—                       | 282. Lamp type.                    |
| 244. Sifting,                        | 201. Fenders—                      |
| 245. Combined stove and ashpan.      | 202. Fire screen or guard,         |
| 285. Dampers—                        | 203. Fireplace-hearth.             |
| 286. Distance operating devices—     | 298. Fire-dogs.                    |
| 287. Door-operated,                  | 120. Fireplaces—                   |
| 288. Fireplace,                      | 134. Air-moistening attachments,   |
| 289. Stove—                          | 135. Blowers—                      |
| 290. Draft,                          | 136. Stove structure,              |
| 291. Repair,                         | 137. Cooking and oven attachments, |
| 292. Stovepipe—                      | 130. Firebacks—                    |
| 293. Combined damper and ventilator, | 131. Hot-air,                      |
| 294. Cone,                           | 138. Fronts—                       |
| 295. Lock and indicator,             | 139. Frames,                       |
| 296. Multiple,                       | 140. Grate-closure,                |
| 297. Sinuous passage.                | 141. Heat-reflector,               |
|                                      | 142. Hoods,                        |
|                                      | 143. Hearths,                      |



# DIVISION XIX.—CONTINUED.

## CLASS 126—Continued.

- Fireplaces—  
 121. Hot-air—  
 123. Stove structure—  
 124. Magazine,  
 122. Two-room heaters,  
 127. Liquid or gaseous fuel—  
 128. Asbestos fireback—  
 129. Hot-air,  
 126. Stove structure,  
 125. Two-room direct radiation,  
 132. Water-backs—  
 133. Liquid or gaseous fuel.  
 144. Fire-pots and linings—  
 145. Adjustable,  
 147. Divided,  
 146. Feeding air,  
 148. Fire-plate,  
 Rotary—  
 149. Horizontal axis,  
 150. Vertical axis,  
 151. Sectional.  
 204. Foot-warmers—  
 205. Bed-heaters,  
 206. Composition-fuel.  
 207. Heated-block,  
 208. Liquid or gaseous fuel—  
 209. Combined heater and lantern,  
 210. Water-heater.  
 283. Fuel-boxes.  
 284. Glue-pots.  
 152. Grates—  
 153. Adjustable—  
 154. Vertically,  
 155. Agitating—  
 157. Alternate bar,  
 156. Alternate ends,  
 158. Dumping,  
 159. Pocket,  
 160. Closures,  
 161. Cut-off,  
 162. Dumping,  
 163. Feeding air,  
 164. Fire-plate—  
 165. Basket,  
 166. Fuel cut-off,  
 167. Grate-bar—  
 168. Removable fuel-sup-port,  
 169. Operating mechanism,  
 Oscillatory—  
 170. Vertical axis—  
 171. Dumping-section,  
 172. Sliding section,  
 173. Raking attachments,  
 174. Reciprocating—  
 175. Alternate bar,  
 176. Rocking-bar—  
 177. Dumping,  
 178. Duplex,  
 179. Grate-bar—  
 180. Removable fuel-sup-port,  
 Rotary—  
 181. Horizontal axis,  
 182. Vertical axis.  
 Heaters—  
 246. Dish,  
 247. Frictional,  
 Liquid or gaseous fuel—  
 Attachments—  
 248. Drum,  
 249. Gas-jet—  
 250. Air—  
 251. Jet-mixer,  
 252. Article-support—  
 253. Jet-mixer,  
 254. Combined,  
 255. Lamp—  
 256. Article-support,  
 Chimney-heaters—  
 257. Air,  
 258. Article-support,  
 Stands—  
 259. Air-heaters,  
 260. Article-support,  
 261. Lunch—  
 262. Combined can and heater—  
 263. Chemical heater,  
 264. Fireless cookers,  
 265. Liquid or gaseous fuel—  
 266. Dinner-buckets—  
 267. Combined bucket and lantern,  
 268. Wagon,  
 269. Powder,  
 270. Solar—  
 271. Water.  
 183. Heating-drums—  
 184. Air-heating attachments,  
 185. Chimney attachments,  
 186. Portable heat-radiators—  
 187. Hot-air,  
 188. Stovepipe—  
 189. Hot-air.  
 99. Hot-air furnaces—  
 113. Air-moisteners,  
 114. Casings,  
 102. Circular radiating-drum,  
 100. Combined furnace and cooking-stove,  
 101. Combined furnace and steam or water,  
 110. Compressed-air,  
 111. Double fire-pot,  
 103. Downdraft,  
 115. Dust-flue,  
 112. Feeding air,  
 104. Horizontal combustion-chamber,  
 105. Hot-air equalizers,  
 106. Internal air-chamber,  
 119. Joints,  
 116. Liquid or gaseous fuel,  
 107. Magazine,  
 117. Preliminary air-heater,  
 118. Radiating-flanges,  
 108. Secondary heating-chamber horizontally arranged,  
 109. Tubular air-heater.  
 325. Hot-air registers—  
 320. Air-moistening attachments,  
 327. Border or frame,  
 328. Flush-surface,  
 331. Foot-rests,  
 329. Heat-distributor,  
 326. Wall.  
 272. Liquid-sterilizers.  
 Ovens—  
 273. Domestic—  
 274. Dutch,  
 275. Portable,  
 276. Wagon.  
 277. Platforms—  
 278. Stove-boards—  
 279. Ventilating.  
 280. Soot-catchers.  
 190. Stove doors and windows—  
 191. Balanced,  
 192. Door-operator,  
 193. Feeding air,  
 194. Hinges,  
 195. Knobs,  
 196. Latches—  
 197. Combined latch and operator,  
 198. Oven-doors, ventilating,  
 199. Thermometer attachments,  
 200. Transparent-panel.  
 299. Stove-hoods—  
 300. Stove-discharge,  
 301. Stovepipe-discharge—  
 302. Stove-casing,  
 303. Top-plate casing.  
 Stove implements—  
 320. Combined,  
 321. Fire-tong,  
 322. Handles,  
 323. Lid-lifter,  
 324. Poker.  
 304. Stove-legs—  
 305. Base-supports,  
 306. Sheet-metal.  
 211. Stove lids and tops—  
 212. Centers or cross-pieces,  
 213. Illuminating,  
 217. Heating-stove—  
 218. Cooking attachments,  
 219. Ornaments and urns,  
 220. Lids,  
 214. Liquid or gaseous fuel—  
 215. Elevating-support,  
 216. Extension-top,  
 221. Stove-mats.  
 307. Stovepipes—  
 313. Air-moistening attachments,  
 310. Elbows—  
 311. Changeable angle,  
 308. Joints or couplings,  
 309. Seam,  
 312. Ventilation.  
 314. Stovepipe-thimbles—  
 315. Adjustable flue-collar,  
 316. Combined thimble and ventilator.  
 317. Floor or ceiling plates,  
 319. Flue-stoppers,  
 318. Stovepipe anchor or lock.  
 Stoves—  
 56. Car—  
 57. Protective casings,  
 1. Cooking—  
 8. Brick-set,  
 14. Broiling attachments,

## CLASS 126—Continued.

- Stoves—  
 Cooking—  
 55. Combined base and hot closet,  
 4. Combined cooking and heating stove—  
 6. Air-heating,  
 7. Magazine,  
 5. Steam or water generators,  
 2. Double fire-pot—  
 3. Cooking and heating,  
 Elevated ovens—  
 17. Smoke-pipe heated,  
 18. Top-plate supported,  
 15. Feeding air,  
 16. Flue-cleaners,  
 12. Hearths—  
 13. Fire-pot,  
 9. Knockdown or separable,  
 Liquid or gaseous fuel—  
 37. Cabinet,  
 36. Combined coal and gas,  
 38. Folding or nesting kit,  
 39. Gas—  
 41. Broilers,  
 40. Burner-stands,  
 42. Safety attachments,  
 Liquid—  
 43. Alcohol,  
 51. Drip pan or receptacle,  
 44. Vapor,  
 45. Wick—  
 46. Extension-top,  
 47. Lamp type—  
 48. Combined top, chimney, and burner,  
 49. Reservoir-supporting top and burner,  
 50. Supporting-frame,  
 52. Valve mechanism, article-controlled,  
 53. Water-backs—  
 54. Combined burner and water-back,  
 10. Magazine—  
 11. Portable,  
 19. Ovens—  
 22. Protector-plate,  
 20. Steam or hot water,  
 21. Ventilated,  
 Reversible,  
 24. Ship's galley,  
 25. Summer—  
 26. Detachable fire-pot,  
 27. Stove-top supported—  
 28. Stove-flue connected,  
 29. Field—  
 30. Supporting-frame,  
 32. Spittoon attachments,  
 33. Tables, steam-heated,  
 34. Water-backs—  
 35. Safety devices,  
 Water-heating—  
 31. Flue extension,  
 Heating—  
 58. Adjustable pipe-collar,  
 59. Camp,  
 76. Deflector-plate,  
 83. Downdraft,  
 77. Feeding air,  
 78. Feeding steam,  
 60. Horizontal body—  
 61. Hot-air,  
 67. Hot-air,  
 71. Central air-tube,  
 70. Internal air-chamber,  
 68. Magazine,  
 69. Reversible-draft, base-heating,  
 72. Tubular air-heaters,  
 Liquid or gaseous fuel—  
 84. Combined heating and ventilating,  
 85. Gas—  
 90. Hot-air,  
 92. Incandescent fire-grate,  
 86. Open-front—  
 87. Asbestos fire-back—  
 88. Hot-air,  
 Stoves—  
 Heating—  
 Liquid or gaseous fuel—  
 Gas—  
 Open-front—  
 Radiator type,  
 Flue-connected,  
 Vapor,  
 Wick—  
 Heating and illuminating,  
 Joints,  
 Magazine—  
 Reversible-draft, base-heating,  
 Open-front—  
 Hot-air,  
 Orchard,  
 Panel,  
 Reversible-draft, base-heating,  
 Sheet-metal—  
 Hot-air,  
 Smoke and gas returning,  
 Stove-plates,  
 Ventilating attachments,  
 Stove-shelves—  
 332. Brackets or stands,  
 334. Drop—  
 335. Door-operated,  
 336. Fireplace-grate,  
 337. Oven shelf or rack—  
 338. Rotary,  
 339. Sliding—  
 340. Door-operated,  
 341. Stovepipe—  
 342. Drop,  
 343. Swinging.  
 226. Tool-heaters—  
 227. Flat-iron—  
 228. Attachments,  
 229. Liquid or gaseous fuel—  
 230. Flat-iron,  
 231. Gas-burner attachments—  
 232. Combined lighting and heating,  
 233. Jet-mixer,  
 234. Tool-controlled valve,  
 235. Lamp attachments,  
 236. Soldering-iron—  
 237. Gas-heaters—  
 238. Tool-controlled valve,  
 239. Liquid-fuel—  
 240. Combined heater and solder-pot,  
 241. Lamp.  
 Trash-burners—  
 222. Cooking-stoves—  
 223. Feeding attachments,  
 224. Domestic-refuse burners,  
 225. Heating-stoves.  
 344. Water-heaters—  
 345. Kettle-furnace—  
 346. Canning,  
 347. Horizontal combustion-chamber,  
 348. Steam generators and cookers,  
 349. Tilting,  
 350. Liquid or gaseous fuel—  
 351. Automatic,  
 352. Auxiliary—  
 353. Detachable,  
 354. Coil,  
 355. Drip-plate,  
 356. Film,  
 357. Hinged or separable,  
 358. Lamp type,  
 359. Overflow,  
 360. Submerged,  
 361. Stand-boilers—  
 362. Circulation,  
 363. Supports,  
 364. Steaming apparatus,  
 365. Stovepipe—  
 366. Circulation,  
 367. Submerged—  
 368. Closed systems pipes,  
 370. Portable,  
 Stationary,  
 Vessels—  
 Steam or water heated—  
 371. Closed chamber or coil,  
 372. Jet.



# DIVISION XX.

## EXAMINER WILKINSON

CLASSES.—3, Artificial Limbs; 16, Builders' Hardware; 32, Dentistry; 70, Locks and Latches; 109, Safes; 27, Undertaking.

### CLASS 3.—ARTIFICIAL LIMBS. (XX.)

#### Subclasses.

- |                        |                     |
|------------------------|---------------------|
| 1. Arms and hands.     | 3. Legs.            |
| 4. Crutches.           | 6. Leg-joints.      |
| 5. Foot extensions.    | 7. Plastic splints. |
| 2. Fracture apparatus. |                     |

### CLASS 16.—BUILDERS' HARDWARE. (XX.)

#### Subclasses.

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| 1. Blind-stops.                     | Hinges—                         |
| 2. Bolts—                           | 109. Flush,                     |
| 61. Double-door,                    | 49. Gate,                       |
| 63. Multiple,                       | 163. Gravitating,               |
| 66. Operators,                      | 111. Lock, frictional,          |
| 64. Sliding,                        | 110. Lock, positive,            |
| 65. Sliding and rotary.             | 112. Longitudinally-adjustable, |
| 3. Carpet-fasteners—                | 14. Safe,                       |
| 68. Clasps,                         | 25. Spring,                     |
| 69. Moldings,                       | 27. Table,                      |
| 70. Strips,                         | 113. Vertically-adjustable.     |
| 71. Tack-fasteners.                 | Sash-balances—                  |
| 4. Casters—                         | 114. Friction,                  |
| 164. Adjustable,                    | 115. Spring—                    |
| Antifriction-rollers—               | 148. Drum and cord,             |
| 73. Loose,                          | 149. Friction-roller,           |
| 72. Pivoted,                        | 150. Gear and rack,             |
| 45. Ball—                           | 116. Weight.                    |
| 151. Antifriction-rollers,          | 16. Sash-cord fasteners—        |
| 152. Pivoted,                       | 125. Weight.                    |
| 165. Leg-elevators—                 | 17. Sash-cord guides.           |
| 166. Frame,                         | 18. Sash-fasteners—             |
| 168. Locked,                        | 117. Gear and rack,             |
| 76. Pintle-retainers                | 53. Lifts,                      |
| 74. Spring,                         | 51. Mid-rail,                   |
| 167. Temporary,                     | 52. Right-angle,                |
| 75. Wheels.                         | 118. Rod-clamps,                |
| 6. Door-checks—                     | 119. Sliding bolts.             |
| 77. Buffers,                        | 19. Sash-holders—               |
| 80. Catches and buffers,            | 121. Clamps,                    |
| 79. Catches, floor,                 | 120. Combined fasteners,        |
| 78. Catches, wall,                  | 122. Foot,                      |
| 81. Chain or link,                  | 54. Roller-bearing,             |
| 83. Foot-bolt,                      | 124. Wedges.                    |
| 82. Foot-lever,                     | 20. Sash-weights.               |
| 84. Sliding-bolt,                   | 22. Shutter-bowers.             |
| 85. Trippers,                       | Shutters—                       |
| 86. Weights.                        | 23. Fasteners—                  |
| 46. Door checks and closers—        | 126. Bars or bolts.             |
| 88. Liquid,                         | Catches—                        |
| 87. Pneumatic.                      | 128. Gravity,                   |
| 47. Door-closers, gravitating.      | 131. Rod,                       |
| 7. Door-hangers—                    | 127. Single,                    |
| 89. Brackets,                       | 155. Sliding,                   |
| 156. Lever,                         | 129. Wall,                      |
| 157. Releasing,                     | 55. Combined sash,              |
| 90. Roller-carriage—                | 56. Fire,                       |
| 91. Ball-bearing,                   | 132. Hooks,                     |
| 92. Sliding,                        | 133. Operators,                 |
| 93. Stay-rollers.                   | 24. Workers—                    |
| 8. Door-securers—                   | 57. Combined slat,              |
| 154. Braces.                        | 134. Cord or chain,             |
| 9. Door-springs—                    | 135. Levers,                    |
| 94. Bow,                            | 136. Rotary-shaft,              |
| 95. India-rubber,                   | 137. Sliding-shaft,             |
| 96. Lever attachments,              | 138. Sliding-shutter.           |
| 98. Sliding-door,                   | 26. Stair-rods and securers—    |
| 97. Strap and pulley attachments,   | 139. Buttons,                   |
| 99. Torsional—                      | 140. Fasteners,                 |
| 100. Coiled,                        | 141. Rods.                      |
| 101. Flat,                          | 162. Suspending-hooks—          |
| 102. Volute.                        | 161. Portable.                  |
| 158. Ferrules, rings, and thimbles— | 37. Till-alarms.                |
| 159. Ferrule-tips,                  | 28. Transom-lifters—            |
| 160. Ring-ferrules                  | 142. Pivots.                    |
| 10. Handles—                        | 29. Window-bead fasteners.      |
| 103. Coffin—                        | 30. Window and door buttons—    |
| 153. Braces.                        | 58. Automatic,                  |
| 11. Hinges—                         | 143. Sliding bolts,             |
| 48. Awning-blind,                   | 144. Screw,                     |
| 04. Box,                            | 59. Strips,                     |
| 5. Coach,                           | 145. Trippers,                  |
| 05. Concealed,                      | 146. Vertically-swinging.       |
| 06. Door—                           |                                 |
| 07. Butt.                           |                                 |
| 08. Strap,                          |                                 |

### CLASS 32.—DENTISTRY. (XX.)

#### Subclasses.

- |                        |                             |
|------------------------|-----------------------------|
| 1. Articulators.       | 7. Operative.               |
| 12. Bridgework.        | 8. Pluggers—                |
| 13. Disks and holders. | 18. Air,                    |
| 14. Engines—           | 24. Angle attachments,      |
| 21. Bracket-supports,  | 25. Hand-operated,          |
| 23. Friction-gear,     | 26. Power-operated.         |
| 22. Standard-supports. | 19. Regulators and spacers. |
| 3. Foil-condensers.    | 20. Rubber-dam clamps.      |
| 15. Handpieces—        | 33. Saliva-ejectors.        |
| 11. Angle attachments. | 9. Teeth—                   |
| 16. Jaw-braces.        | 32. Filling,                |
| 17. Matrices.          | 29. Metal-crown,            |
| 4. Mechanical.         | 30. Porcelain-crown.        |
| 5. Miscellaneous.      | 10. Tools—                  |
| 6. Molds.              | 31. Burs,                   |
| 27. Mouth-mirrors.     | 34. Forceps.                |
| 28. Obtundors.         |                             |

### CLASS 70.—LOCKS AND LATCHES. (XX.)

#### Subclasses.

- |                                 |                                 |
|---------------------------------|---------------------------------|
| 116. Bag-fasteners.             | Locks—                          |
| 3. Box-fasteners—               | 75. Pivoted-tumbler,            |
| 80. Seal,                       | 23. Seal—                       |
| 81. Sliding-bolt,               | 95. Seals,                      |
| 82. Spring-catch.               | 31. Sliding-door,               |
| 83. Hasp-fasteners.             | 76. Sliding-tumbler,            |
| 7. Key-fasteners—               | 79. Systems of locks,           |
| 65. Portable.                   | 25. Till,                       |
| 8. Keyhole-guards—              | 26. Time,                       |
| 61. Sliding and pivoted.        | 27. Trunk—                      |
| 9. Keys.                        | 115. Swinging-hasp,             |
| 10. Knobs.                      | 77. Tumbler and dog,            |
| 11. Knob attachments—           | 78. Without tumblers.           |
| 84. Key-fasteners,              | 15. Lock-strikes—               |
| 85. Screw-spindle,              | 52. Electric.                   |
| 86. Set-screw and pin fastener, | 16. Lock-trimmings.             |
| 87. Spring-fastener,            | 29. Locks and latches combined. |
| 88. Wedge-fastener.             | 17. Padlocks—                   |
| 12. Knob-roses,                 | 104. Divided-shackle,           |
| 41. Knob-spindle fasteners.     | 110. Indicator—                 |
| Latches—                        | 111. Pivoted-shackle,           |
| 64. Automatic-detent,           | 19. Permutation—                |
| 28. Gate,                       | 112. Pivoted-shackle,           |
| 51. Gravity,                    | 113. Sliding-shackle,           |
| 44. Lifting—                    | 96. Pin,                        |
| 45. Hooked-end,                 | 105. Pivoted-shackle—           |
| 43. Pivoted-end,                | 106. Sliding-bolt,              |
| 21. Reversible,                 | 107. Rotating-shackle,          |
| 42. Sliding,                    | 97. Seal,                       |
| 49. Swinging.                   | 108. Sliding-shackle.           |
| 18. Locks—                      | 18. Permutation—                |
| 2. Bag,                         | 56. Dials,                      |
| 90. Bicycle,                    | 55. Hasp,                       |
| 4. Car-seat,                    | 66. Keyhole-guards,             |
| 46. Cylinder,                   | 58. Knob-pins,                  |
| 91. Cylinder-knob—              | 57. Operating-handle,           |
| 92. Multiple-key,               | 54. Push-pin,                   |
| 50. Electric—                   | 53. Rotating tumblers,          |
| 63. Combination,                | 60. Sliding tumblers,           |
| 62. Time,                       | 59. Spindles,                   |
| 5. Hasp,                        | 67. Till-locks.                 |
| 6. Indicator,                   | 94. Seal-bolts.                 |
| 74. Multiple-bolt,              | 117. Seal-buckles.              |
| 69. Multiple-key—               | 98. Seals—                      |
| 70. Adjustable tumbler,         | 99. Automatic-catch,            |
| 71. Master-key,                 | 100. Box and bag,               |
| 72. Primary and secondary,      | 101. Box-strap.                 |
| 73. Trap,                       | 24. Shackles.                   |
| 20. Piano,                      | 102. Sliding-door fasteners.    |
| 47. Pin—                        | 103. Trunk-fasteners.           |
| 93. Multiple-key,               |                                 |

## DIVISION XX.—CONTINUED.

### CLASS 109.—SAFES. (xx)

#### *Subclasses.*

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1. Burglar-proof.</li> <li>4. Circular-door.</li> <li>5. Express.</li> <li>2. Fireproof.</li> <li>6. Gas and explosives.</li> <li>11. Pressure mechanism.</li> </ul> | <ul style="list-style-type: none"> <li>3. Safe bolt-work—</li> <li>9. Automatic</li> <li>10. Safe-filling.</li> <li>7. Safety-deposit.</li> <li>12. Safety-deposit boxes.</li> <li>8. Water and air.</li> </ul> |
|---|---|

### CLASS 27.—UNDERTAKING. (xx.)

#### *Subclasses.*

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. Biers.</li> <li>2. Burial apparatus—</li> <li>5. Grave-fillers,</li> <li>6. Raising and lowering.</li> <li>3. Coffins—</li> <li>10. Brackets,</li> <li>11. Corners,</li> <li>12. Fasteners,</li> <li>13. Head-rests,</li> <li>14. Lids,</li> </ul> | <ul style="list-style-type: none"> <li>Coffins—</li> <li>15. Life-signals,</li> <li>16. Linings and coverings,</li> <li>7. Metallic,</li> <li>8. Plastic material,</li> <li>17. Shields,</li> <li>9. Wooden.</li> <li>4. Embalming—</li> <li>18. Apparatus,</li> <li>19. Processes.</li> </ul> |
|--|--|

# DIVISION XXI.

EXAMINER GILES.

CLASSES.—13, Brakes and Gins; 19, Carding; 26, Cloth-Finishing; 28, Cordage; 38, Felt and Fur; 66, Knitting and Netting; 117, Silk; 118, Spinning; 139, Weaving.

## CLASS 13.—BRAKES AND GINS. (XXI.)

### Subclasses.

- |                            |                            |
|----------------------------|----------------------------|
| 10. Delinting cotton-seed. | 2. Hackling-machines.      |
| 1. Gin attachments.        | 3. Hair-pickers.           |
| 11. Gin-brushes.           | 4. Oakum-machines.         |
| 17. Gin-condensers.        | 5. Processes.              |
| 12. Gin-feeders—           | 6. Reciprocating brakes.   |
| 19. Pneumatic.             | 7. Roller-gins.            |
| 13. Gin-ribs.              | 21. Rotary brakes—         |
| 20. Gin-rollers.           | 16. Breakers and crushers, |
| 15. Gin-saw cleaners.      | 18. Scutchers.             |
| 14. Gin-saws.              | 9. Saw-gins.               |

## CLASS 19.—CARDING. (XXI.)

### Subclasses.

- |                                     |                               |
|-------------------------------------|-------------------------------|
| 16. Balling heads.                  | 14. Fleece-removers.          |
| 1. Burring.                         | 8. Lapping.                   |
| 2. Card-clothing.                   | 19. Opener-beaters.           |
| 3. Carding.                         | 20. Opener evening mechanism. |
| 5. Coilers.                         | 9. Pickers.                   |
| 17. Comb bbbing mechanism.          | 21. Screens.                  |
| 6. Combing—                         | 25. Stopping.                 |
| 24. Circle combs.                   | 15. Stripping mechanism.      |
| 12. Covering yarn.                  | 23. Traveling-flat cards.     |
| 22. Cylinders and rollers.          | 10. Wadding.                  |
| 18. Dust-trunks.                    | 11. Wool-oiling.              |
| 7. Feeding cards.                   |                               |
| 13. Fleece dividers and condensers. |                               |

## CLASS 26.—CLOTH-FINISHING. (XXI.)

### Subclasses.

- |                                     |                            |
|-------------------------------------|----------------------------|
| 10. Beetling.                       | 5. Pressing.               |
| 11. Calendering.                    | 13. Rigging.               |
| 9. Cutting lace and looped fabrics. | 6. Shearing.               |
| 2. Finishing.                       | 14. Singeing.              |
| 12. Finishing cut pile fabrics.     | 7. Sponging.               |
| 3. Folding.                         | 8. Stretching.             |
| 18. Guiding.                        | 16. Stretching and drying. |
| 4. Napping—                         | 17. Winding.               |
| 19. Planetary machines.             |                            |

## CLASS 28.—CORDAGE. (XXI.)

### Subclasses.

- |                                |                                       |
|--------------------------------|---------------------------------------|
| 23. Balls.                     | 13. Tassels.                          |
| 2. Banding.                    | 33. Tying yarns.                      |
| 3. Bobbin-supporters.          | 14. Warping.                          |
| 4. Braiding.                   | 30. Warping-reeds.                    |
| 24. Braiding carriers.         | 31. Warping stop-motions.             |
| 25. Braids.                    | 32. Winding halls.                    |
| 21. Cord and rope machines.    | Winding bobbins—                      |
| 5. Cords and ropes.            | 17. Sewing-machine shuttle,           |
| 6. Covering cord.              | 15. Warp-wind.                        |
| 7. Finishing yarn and thread.  | 16. Weft-wind.                        |
| 27. Fuse and packing machines. | 22. Winding heddle and seine needles. |
| 29. Lease-formers.             | 18. Winding spools.                   |
| 10. Reels.                     | 19. Winding tatting-shuttles.         |
| 11. Separating rope.           | 20. Yarn guides and clearers.         |

## CLASS 38.—FELT AND FUR. (XXI.)

### Subclasses.

- |                      |                     |
|----------------------|---------------------|
| 7. Fabrics.          | 10. Forming bats.   |
| 8. Felting-machines. | 11. Fulling.        |
| 9. Flock-cutting.    | 12. Furs and pelts. |

## CLASS 66.—KNITTING AND NETTING. (XXI.)

### Subclasses.

- |  |                               |
|--|-------------------------------|
| 19. Circular machines—                 | 5. Needles.                   |
| 20. Dial.                              | 6. Netting.                   |
| 21. Independent needles—               | 27. Rotary burs and sinkers.  |
| 22. Dial—                              | 7. Stopping.                  |
| 23. Fashioning,                        | 28. Straight machines—        |
| 24. Fashioning,                        | 29. Cams and stops,           |
| 25. Looper pin and hook.               | 30. Fashioning.               |
| 17. Crocheting.                        | 31. Looper pin and hook.      |
| 3. Darning.                            | 9. Take-ups and tensions.     |
| 4. Fabrics.                            | 20. Tatting.                  |
| 12. Feeding.                           | 23. Transferring devices.     |
| 26. Loopers, sinkers, and web-holders. | 33. Transverse warp-machines. |
|  | 34. Warp and weft machines.   |

## CLASS 117.—SILK. (XXI.)

### Subclasses.

- |                 |                |
|-----------------|----------------|
| 1. Assorting.   | 6. Stretching. |
| 3. Cocooneries. | 7. Throwing.   |
| 4. Doubling.    | 8. Winding.    |
| 5. Silk.        |                |

## CLASS 118.—SPINNING. (XXI.)

### Subclasses.

- |                                    |                                   |
|------------------------------------|-----------------------------------|
| 1. Bobbin and cop builders.        | 11. Rings and travelers.          |
| 31. Bobbin and spindle connectors. | 27. Spindles and appurtenances.   |
| 2. Bobbins.                        | 25. Spindles and bearings—        |
| 26. Clearers.                      | 18. Bolsters,                     |
| 30. Covering yarn.                 | 19. Combined bearings,            |
| 5. Domestic.                       | 20. Sleeve whirles and standards, |
| 6. Doubling.                       | 21. Steps.                        |
| 7. Drawing and evening.            | 24. Spindle-driving devices.      |
| 23. Drawing-rollers.               | 12. Stopping.                     |
| 17. Drawing stop mechanism.        | 22. Top-roll saddles.             |
| 28. Drawing-trumpets.              | 13. Throstles and caps.           |
| 29. Fliers.                        | 14. Twisting-heads.               |
| 8. Hemp, flax, and hair.           | 16. Yarn-controllers.             |
| 9. Mules and jacks.                |                                   |
| 10. Ring-frames.                   |                                   |

## CLASS 139.—WEAVING. (XXI.)

### Subclasses.

- |                                  |                            |
|----------------------------------|----------------------------|
| 47. Bag-turning machines.        | 22. Picker-checks.         |
| 5. Carpet-rag loopers.           | 21. Pickers.               |
| 6. Chenille.                     | 86. Reed-machines.         |
| 40. Chenille-machines.           | 87. Reeds.                 |
| 50. Cutting double pile fabrics. | Shedding—                  |
| 67. Driving and lay motions.     | 78. Cam and treadle,       |
| 9. Fabrics—                      | 80. Harness connections,   |
| 70. Elastic,                     | 88. Harness-retractors,    |
| 71. Pile,                        | 79. Pattern-controlled.    |
| 72. Tuhular.                     | 27. Sbttles—               |
| 41. Fringe-machines.             | 44. Cop-cell and cover,    |
| 10. Fringes.                     | 45. Float-detecting,       |
| 73. Heddle-frames.               | 46. Guides and tensions,   |
| 13. Heddle-machines.             | 89. Spindles and tips,     |
| 14. Heddles.                     | 90. Weft-detecting.        |
| 16. Jacquard mechanism.          | 28. Shuttle-boxes.         |
| 74. Lay structures.              | 29. Shuttle-checks.        |
| 75. Lease-rods.                  | 30. Shuttle-guards.        |
| 18. Looms—                       | Shuttle-motions—           |
| 1. Bag,                          | 48. Fly,                   |
| 2. Basket,                       | 83. Magnetic,              |
| 3. Buttonhole,                   | 69. Pneumatic,             |
| 7. Circular,                     | 49. Positive.              |
| 84. Cross-weaving,               | 43. Shuttle-threaders.     |
| 11. Haircloth,                   | 52. Stopping—              |
| 12. Hand,                        | 51. Protector mechanism,   |
| 15. Irregular,                   | Warp stop-motions—         |
| 17. Lappet,                      | 91. Electrical,            |
| 19. Narrow-ware,                 | 92. Mechanical,            |
| 20. Needle,                      | 54. Weft stop-motions.     |
| 23. Pile-fabric—                 | 61. Take-ups and let-offs— |
| 62. Longitudinal wires,          | 56. Beams,                 |
| 63. Pile-wires,                  | 57. Escapement let-offs,   |
| 64. Pile-wire motions,           | 58. Friction let-offs,     |
| 65. Terry,                       | 81. Guide and whip rolls,  |
| 66. Tufted,                      | 59. Let-offs,              |
| 32. Slat, cane, and straw,       | 60. Take-ups.              |
| 68. Swivel,                      | 76. Temples.               |
| 85. Weft-replenishing,           | 82. Treating warp and web  |
| 39. Wire.                        | 87. Tying in warps.        |
| 77. Loose-reed motions.          | 38. Weft-forks.            |
| 42. Pattern-chains.              |                            |



# DIVISION XXII.

EXAMINER COLWELL.

CLASSES.—124, Air-Guns, Catapults, and Targets; 102, Ammunition and Explosive Devices; 9, Boats and Buoys; 42, Firearms; 115, Marine Propulsion; 89, Ordnance; 239, Railway-Rails and Joints; 238, Railway-Ties and Fasteners; 114, Ships.

## CLASS 124.—AIR-GUNS, CATAPULTS, AND TARGETS. (XXII.)

(For definitions see Bulletin No. 6, p. 7.)

### Subclasses.

- |                         |                          |
|-------------------------|--------------------------|
| 7. Bows and cross-bows. | 15. Targets—             |
| 1. Catapults—           | 15.5. Aim-recorders,     |
| 2. Rubber-spring.       | 17. Flying—              |
| Guns—                   | 18. Balls,               |
| 8. Air—                 | 16. Moving.              |
| 9. Blow,                | 3. Target-traps—         |
| 10. Spring—             | 4. Magazine,             |
| 11. Magazine,           | 5. Pivoted throwing-arm— |
| 12. Spring—             | 6. Rotatable.            |
| 13. Magazine,           |                          |
| 14. Rubber.             |                          |

## CLASS 9.—BOATS AND BUOYS. (XXII.)

(For definitions see Bulletin No. 8, p. 3.)

### Subclasses.

- |                             |                               |
|-----------------------------|-------------------------------|
| 1. Boats—                   | 17. Life-preservers—          |
| 6. Hull construction—       | 20. Garment,                  |
| 6.5. Formers and framers,   | 18. Mechanical propulsion,    |
| 5. Hunting,                 | 19. Self-inflating.           |
| 3. Life-boats—              | 11. Life-rafts—               |
| 4. Inclosed,                | 13. Mattress,                 |
| 7. Seats and foot-supports, | 12. Ship parts and furniture. |
| 2. Sectional and folding.   | 14. Life-saving apparatus.    |
| 8. Buoys—                   | 24. Oars—                     |
| 8.5. Oil-distributers,      | 25. Bow-facing.               |
| 10. Sails,                  | 15. Rafting and booming—      |
| 9. Wreck-indicating.        | 16. Timber-couplings.         |
| 22. Hoisting and lowering—  | 26. Rowlocks.                 |
| 23. Detaching devices.      | 21. Swimming appliances.      |

## CLASS 42.—FIREARMS. (XXII.)

(For definitions see Bulletin No. 7, p. 11.)

### Subclasses.

## CLASS 102.—AMMUNITION AND EXPLOSIVE DEVICES. (XXII.)

(For definitions see Bulletin No. 5, p. 6.)

### Subclasses.

- |                       |                       |
|-----------------------|-----------------------|
| 5. Blasting—          | Projectiles—          |
| 6. Cartridges—        | 31. Lubricating,      |
| 7. Electric,          | 35. Oil-distributing, |
| 8. Fuses—             | 40. Sabots—           |
| 10. Caps,             | 41. Wedge-expanded,   |
| 11. Electric,         | 32. Self-rotating,    |
| 12. Cartridges—       | 29. Shells—           |
| 13. Accelerating,     | 36. Fuses—            |
| 14. Practice,         | 37. Combination,      |
| 18. Primers—          | 38. Electric,         |
| 19. Electric,         | 39. Percussion,       |
| 16. Shells—           | 30. High-explosive,   |
| 17. Breech structure, | 42. Wads.             |
| 15. Shot.             | 20. Pyrotechnics—     |
| 1. Miscellaneous.     | 21. Cartridges,       |
| 43. Primers.          | 22. Fire-crackers,    |
| 26. Projectiles—      | 23. Rockets,          |
| 27. Bomb-lances,      | 24. Torches,          |
| 33. Canister,         | 25. Toy torpedoes.    |
| 28. Capped or covered | 2. Torpedoes—         |
| 34. Line-carrying,    | 3. Submarine mines,   |
|                       | 4. Well.              |

- |                             |                                  |
|-----------------------------|----------------------------------|
| 76. Barrels—                | Breech-loading—                  |
| 77. Auxiliary,              | Upward-tilting breech—           |
| 79. Choke devices,          | 47. Ejectors—                    |
| 78. Rifling.                | 48. Hammer,                      |
| 86. Bayonets.               | 46. Extractors,                  |
| 2. Breech-loading—          | 41. Locks—                       |
| Automatic—                  | 43. Cocking devices,             |
| 3. Gas-operated,            | 42. Single-trigger.              |
| 4. Recoil-operated,         | 52. Cane-guns.                   |
| 5. Breech-hinged barrel,    | 84. Electric appliances.         |
| 9. Faucet breech-block,     | 85. Gun-trimmings.               |
| 10. Forward-sliding barrel— | 90. Implements—                  |
| Magazine,                   | 91. Cleaning—                    |
| 7. Grip magazine-pistols,   | 92. Rod-joints,                  |
| 6. Magazine,                | 93. Intrenching,                 |
| 49. Magazines—              | 94. Rests,                       |
| 50. Box,                    | 95. Shell-extracting.            |
| 12. Side-swinging barrel—   | 69. Locks—                       |
| 13. Parallel pivot,         | 70. Safety.                      |
| Sliding breech-block—       | 87. Magazine-chargers—           |
| Magazine,                   | 88. Packs—                       |
| 15. Rearward—               | 89. Revolver.                    |
| 16. Extractors,             | 1. Miscellaneous.                |
| 17. Magazine—               | 51. Muzzle-loaders.              |
| 18. Box,                    | 83. Nipples and guards.          |
| 19. Rotary,                 | 53. Pistol-swords.               |
| 20. Pivoted hammer—         | 59. Revolvers—                   |
| Magazine—                   | 63. Hinged-barrel—               |
| 22. Box,                    | 64. Barrel-catches,              |
| 23. Vertical mortise—       | 65. Locks—                       |
| Magazine,                   | 67. Cylinder-stops,              |
| 5. Spring-motor operated,   | 66. Safety devices,              |
| Swinging breech-block—      | 60. Magazine-fed cylinder,       |
| 28. Downward and rearward—  | 61. Muzzle-loaders,              |
| Magazine,                   | 68. Shell-extractors,            |
| 29. Laterally forward,      | 62. Swinging-cylinder.           |
| 31. Laterally rearward,     | 80. Sights—                      |
| Magazine,                   | 81. Reflectors and illuminators, |
| 32. Parallel pivot—         | 82. Vertically-adjustable.       |
| 33. Magazine,               | 71. Stocks—                      |
| 34. Rearward and downward—  | 73. Adjustable                   |
| Magazine,                   | 72. Auxiliary,                   |
| 35. Upward and forward—     | 74. Cushioned,                   |
| Magazine,                   | 75. Stock and barrel fastenings. |
| 38. Upward and rearward—    | 54. Toy—                         |
| Magazine,                   | 55. Cannon,                      |
| 40. Upward-tilting breech—  | 56. Liquid-throwing,             |
| Barrel-locks—               | 58. Revolvers,                   |
| 45. Hammer-cocking,         | 57. Ribbon-fed.                  |



# DIVISION XXII.—CONTINUED.

## CLASS 115.—MARINE PROPULSION. (XXII.)

(For definitions see Bulletin No. 17, p. 11.)

### Subclasses.

- |                              |                               |
|------------------------------|-------------------------------|
| 19. Buoyant propellers—      | 51. Paddle-wheels—            |
| 20. Rotary hull.             | 51. Fitting and driving—      |
| 63. Chain propellers—        | 54. Depth regulation,         |
| 65. Feathering,              | 53. Channels and ways,        |
| 64. Steering and adjustable. | 52. Horizontal and inclined   |
| 66. Crank-paddles—           | wheels,                       |
| 67. Steering and adjustable. | 50. Steering.                 |
| 11. Jet—                     | 17. Portable propellers—      |
| 13. Explosive,               | 18. Steering.                 |
| 14. Hydraulic—               | 31. Reciprocating propellers— |
| 15. Pneumatic-drive,         | 33. Reversing,                |
| 16. Wheel-drive,             | 32. Steering.                 |
| 12. Steering.                | 34. Screw-propellers—         |
| 1. Land and water boats—     | 44. Adjustable blades—        |
| 2. Pedomotors.               | 45. Reversing,                |
| 21. Manual power—            | 36. Fitting and driving—      |
| 22. Catamaran,               | 42. Casings and shields,      |
| 23. Paddle-wheel,            | 39. Channels and ways,        |
| 24. Screw.                   | 41. Depth regulation,         |
| 25. Marine pedomotors—       | 37. Multiple or twin screw—   |
| 26. Catamaran,               | 38. Side,                     |
| 27. Bicycle-propelled.       | 43. Propeller-shaft brakes,   |
| 28. Oscillating propellers—  | 40. Self-clearing,            |
| 30. Reversing,               | 46. Radial blades—            |
| 29. Steering.                | 47. Removable,                |
| 49. Paddle-wheels—           | 48. Rims or cylinders,        |
| 61. Adjustable blades or     | 35. Steering.                 |
| buckets,                     | 6. Towing—                    |
| 62. Curvilinear blades or    | 7. Cable systems,             |
| buckets,                     | 9. Ground-wheels or polars,   |
| 55. Feathering blades—       | 10. Towing-machines,          |
| 56. Adjustable,              | 8. Track systems.             |
| 60. Eccentrics,              | 4. Wave propulsion—           |
| 59. Gearing,                 | 5. Oscillating weight,        |
| 58. Guides, tracks, etc.,    | 3. Wind-motors.               |
| 57. Radial axis,             |                               |

## CLASS 89.—ORDNANCE. (XXII.)

(For definitions see Supplement No. 4, p. 2996.)

### Subclasses.

- |                           |                            |
|---------------------------|----------------------------|
| 8. Accelerating.          | 9. Machine-guns—           |
| Automatic—                | 11. Axially-moving breech- |
| 2. Gas-operated,          | block,                     |
| 3. Recoil-operated.       | 10. Centrifugal,           |
| 14. Barrels.              | 12. Revolving barrels,     |
| 16. Composite,            | 13. Revolving cylinder.    |
| 15. Wound.                | 1. Miscellaneous.          |
| 17. Breech-closures—      | 37. Mounts—                |
| 26. Gas-checks,           | 38. Disappearing gun—      |
| 18. Key-locked,           | 39. Counterpoise,          |
| 19. Screw—                | 40. Field,                 |
| 20. Interrupted—          | 42. Recoil-checks—         |
| 21. Fixed-ammunition,     | 43. Fluid,                 |
| 22. Transverse—           | 44. Spring,                |
| 24. Sliding,              | 41. Training mechanisms.   |
| 25. Sliding and swinging, | 6. Pneumatic—              |
| 23. Swinging.             | 7. Explosive charge.       |
| 33. Cartridge-feeding—    | 29. Practice-barrels.      |
| 35. Belts,                | 4. Semi-automatic.         |
| 34. Holders.              | 36. Shields.               |
| 27. Firing devices—       | 32. Sights.                |
| 28. Electric.             | 5. Submarine.              |
| 45. Loading—              | 31. Tompions and valves.   |
| 46. Hoisting apparatus,   | 30. Vents and stoppers.    |
| 47. Rammers.              |                            |

## CLASS 239.—RAILWAY-RAILS AND JOINTS. (XXII.)

### Subclasses.

- |                   |                       |
|-------------------|-----------------------|
| Rail-joints—      | Rail-joints—          |
| 1. Boxes,         | 11. Threadless bolts, |
| Bridge-pieces—    | 12. Truss,            |
| 2. Base,          | 13. Web-blocks.       |
| Tread,            | 14 Rails—             |
| 4. Cast-on,       | 15. Braces,           |
| 5. Insulated,     | 16. Compound,         |
| 6. Joint-chairs,  | 17. Guard—            |
| 7. Miscellaneous, | 18. Clamps,           |
| 8. Scarf,         | 19. Rack.             |
| 9. Splice-bars—   |                       |
| Girder,           |                       |

## CLASS 238.—RAILWAY-TIES AND FASTENERS. (XXII.)

### Subclasses.

- |                        |                     |
|------------------------|---------------------|
| 1. Stringers and ties— | Stringers and ties— |
| 2. Chairs,             | 5. Metallic,        |
| 3. Composition,        | 6. Pot-sleepers.    |
| 4. Fastenings,         |                     |

## CLASS 114.—SHIPS. (XXII.)

(For definitions see Bulletin No. 17, p. 4.)

### Subclasses.

- |                                    |                              |
|------------------------------------|------------------------------|
| 206. Anchors—                      | 188. Furniture—              |
| 209. Drags or sea-anchors,         | 189. Cabins and state-rooms  |
| 207. Fluke—                        | 190. Life-preserver racks,   |
| 208. Pivoted.                      | 191. Self-leveling—          |
| 210. Anchor-trippers.              | 192. Berths—                 |
| 121. Ballasting—                   | 193. Single-pivot,           |
| 122. Antirolling,                  | 194. Chairs,                 |
| 126. Fins and boards,              | 195. Tables.                 |
| 123. Floats,                       | 201. Hatches and covers—     |
| 124. Shifting weights,             | 203. Fasteners,              |
| 125. Water-tanks.                  | 202. Sliding.                |
| 183. Bilge-discharge—              | 179. Hawse-pipes—            |
| 184. Ejectors—                     | 181. Friction-rollers,       |
| 186. Ash,                          | 180. Stoppers and covers.    |
| 185. Ship's motion.                | 43. Ice-boats.               |
| 218. Bitts, cleats, and pin-rails. | 40. Ice-breakers—            |
| 65. Building—                      | 42. Cutters,                 |
| 67. Antifriction surfaces,         | 41. Rams.                    |
| 83. Bracing and staying,           | 221. Implements—             |
| 78. Bulkhead and compart-          | 224. Calking, paying, etc.,  |
| ment,                              | 226. Clamps,                 |
| 71. Cabins,                        | 222. Hull-cleaning,          |
| 86. Calking and seaming,           | 223. Rigging,                |
| 80. Canal and ferry boats,         | 225. Spikes, pins, and fids. |
| 75. Decks,                         | 140. Keels—                  |
| 72. Freighters—                    | 142. Bilge,                  |
| 73. Bulk-cargo—                    | 143. Rocking,                |
| 75. Antishifting devices,          | 141. Vertical adjustment.    |
| 76. Ceilings and floors,           | 227. Leak-stoppers—          |
| 74. Liquid,                        | 229. Aprons, mats, etc.,     |
| Insubmersible vessels—             | 228. Interior.               |
| 69. Linings and fillings,          | 230. Mooring devices—        |
| 79. Iron—                          | 231. Ferry-slip.             |
| 80. Corrugated,                    | 232. Oil-distributors—       |
| 81. Tubular,                       | 234. Drags and floats,       |
| 88. Joints,                        | 233. Ship structure.         |
| 87. Knees,                         | 173. Ports—                  |
| 66. Observation-boats,             | 177. Light and air—          |
| 77. Sectional,                     | 178. Hinged covers,          |
| 84. Sheathing and planking,        | 174. Stoppers—               |
| 82. Wood.                          | 175. Gun-port,               |
| 116. Bulkheads and doors—          | 176. Hinged.                 |
| 117. Doors—                        | 39. Sail-boats.              |
| 118. Automatic—                    | 102. Sails and rigging—      |
| 119. Sliding,                      | 115. Clues and thimbles,     |
| 120. Sliding.                      | 114. Cringles and hanks,     |
| 199. Cable-stoppers—               | 113. Hoops and connections,  |
| 200. Chain,                        | 112. Mast-travelers,         |
| 127. Centerboards—                 | 109. Rigging screws and      |
| 129. Multiple,                     | stretchers—                  |
| 132. Pivoted—                      | 110. Tension-relievers,      |
| 135. Lateral,                      | 111. Running rigging,        |
| 136. Lateral-swing,                |                              |
| 137. Lateral-tilt,                 | 103. Sails—                  |
| 133. Sectional—                    | 108. Fastening devices,      |
| 134. Fan,                          | 104. Reefing and furling—    |
| 128. Steering,                     | 105. Fore and aft sails—     |
| 138. Vertical-drop—                | 106. Rolling,                |
| 139. Sectional,                    | 107. Rolling.                |
| 130. Vertical-drop and piv-        | 26. Scows—                   |
| oted-swing—                        | 27. Dumping and unload-      |
| Sectional.                         | ing—                         |
| 219. Fenders—                      | 36. Bottom doors—            |
| 220. Roller.                       | 37. Flooding-gates,          |
| 56. Form—                          | 31. Platform—                |
| 60. Canal and ferry boats,         | 34. Conveyers,               |
| 62. Concave bottom,                | 35. Side doors,              |
| 61. Divided hull,                  | 32. Tilting—                 |
| 64. Drafting,                      | 33. Carriers,                |
| 63. Flat bottom,                   | 28. Sectional—               |
| 58. Paddle-wheelers,               | 29. Hinged,                  |
| 57. Screw-propeller type,          | 30. Separable,               |
| 59. Spindle.                       | 38. Turnover.                |

# DIVISION XXII.—CONTINUED.

## CLASS 114.—Continued.

182. Scuppers.
187. Smoke-stacks.
89. Spars—
101. Fair leaders and chocks,
97. Gaffs, booms, etc.—
98. Pivoted,
99. Crotches and supports,
90. Masts and masting—
93. Coats, shields, and steps,
92. Cross and trestle trees,
94. Heads and irons,
91. Swinging,
100. Spar-irons,
95. Yards—
96. Trusses and parrels.
144. Steering mechanism—
146. Auxiliary,
152. Fins,
153. Foot,
150. Fluid-pressure—
151. Jet,
149. Keel,
147. Paddles and wheels—
148. Channels,
162. Rudders—
164. Auxiliary,
170. Brakes—
171. Hydraulic,
165. Hanging and shipping,
172. Locks,
163. Multiple,
169. Post bearings and heads,
167. Sectional,
166. Tubular,
168. Jury,
145. Speed-retarders,
160. Wheel and drum—
161. Intermediate gear,
154. Wheel-shaft gearing—
155. Screw—
156. Intermediate gear,
157. Right and left—
158. Intermediate gear,
159. Segmental rack.
16. Submarine vessels—
17. Torpedo-boats.
213. Tension-relievers—
215. Cable,
216. Couplers—
217. Safety-release,
214. Fluid.
18. Torpedo-boats—
19. Spar.
20. Torpedoes—
25. Depth regulation,
21. External control,
22. Separable sections,
23. Steering mechanism—
24. Gyroscope.
240. Torpedo-guards—
241. Nets.
238. Torpedo-launching—
239. Outboard.
235. Towing—
236. Steering mechanism—
237. Indicators.
204. Travelers—
205. Tension-relievers.
196. Valves—
197. Boat-plugs,
198. Sea-cocks.
211. Ventilation—
212. Valves.
44. Vessel raising and docking—
49. Camels, caissons, and pontoons,
45. Floating dry-docks—
48. Elevators,
47. End-gates,
46. Sectional,
50. Submerged—
52. Air-tanks—
53. Camels, caissons, and pontoons,
54. Inflatable bags,
51. Hoisting,
55. Sand and mud loosening.
1. War-ships—
9. Armored—
11. Belting and plating—
12. Compound—
13. Buffers,
10. Deflectors,
14. Screens and shields,
15. Concealment.
4. Floating batteries,
2. Rams—
3. Battering,
5. Turret—
6. Combined elevating and rotary,
7. Elevating,
8. Rotary.

# DIVISION XXIII.

EXAMINER NEWTON.

CLASSES. 181, Acoustics; 133, Coin-Handling; 58, Horology; 234, Recorders; 235, Registers; 161, Time Controlling Mechanism.

## CLASS 181.—ACOUSTICS. (XXIII.)

(For definitions see Supplement No. 1, p. 2602.)

### Subclasses.

- |                             |                             |
|-----------------------------|-----------------------------|
| 30. Auditorium.             | 8. Graphophones—            |
| 23. Auricles.               | 29. Tape.                   |
| 28. Dentiphones.            | 27. Mechanical telephones.  |
| 25. Ear-trumpets.           | 27. Megaphones.             |
| 3. Gramophones.             | 5. Miscellaneous.           |
| 2. Graphophones—            | Sound-boxes—                |
| 12. Determining devices,    | 11. Gramophone,             |
| 5. Disk,                    | 10. Graphophone.            |
| 9. Feed mechanism,          | 26. Sound-locating devices. |
| 13. Mandrels,               | Speaking-tubes—             |
| 4. Multiple-record,         | 19. Alarms and indicators.  |
| 6. Reciprocating-record,    | 20. Combined mouth and      |
| 7. Swinging reproducer-arm, | ear pieces,                 |
| 17. Tablets—                | 21. Mouthpieces,            |
| 16. Duplicating devices,    | 18. Systems,                |
| 14. Methods and machines    | 22. Tubes.                  |
| for making,                 | 24. Stethoscopes.           |
| 15. Turning and smoothing,  | 1. Telegraphophones.        |

## CLASS 133.—COIN-HANDLING. (XXIII.)

(For definitions see Bulletin No. 5, p. 14.)

### Subclasses.

- |                   |                     |
|-------------------|---------------------|
| 3. Assorters.     | 9. Packages—        |
| 2. Change-makers. | 10. Wrappers.       |
| 8. Counters.      | 11. Receptacles—    |
| Deliverers—       | 12. Mats and trays— |
| 4. Multiple,      | 13. Counter,        |
| 5. Single—        | 14. Mounted.        |
| 6. Hand-operated. | 7. Tubes.           |
| 1. Miscellaneous. |                     |

## CLASS 58.—HOROLOGY. (XXIII.)

(For definitions see Bulletin No. 6, p. 3.)

### Subclasses.

- |                          |                           |
|--------------------------|---------------------------|
| 139. Arbors and pinions. | Escapements—              |
| 107. Balances—           | Balance—                  |
| 108. Compensating,       | 120. Duplex,              |
| 114. Hair-springs—       | 121. Lever—               |
| 115. Collets and studs,  | 122. Straight-line,       |
| 109. Regulating—         | 123. Pendulum—            |
| 110. Compensating,       | 124. Gravity.             |
| 113. Curb-pins,          | 1. Miscellaneous.         |
| 111. Rack-and-pinion,    | 129. Pendulums—           |
| 112. Screw.              | 135. Balls,               |
| 138. Cannon-pinions.     | 134. Beat-adjusters,      |
| 2. Clocks—               | 133. Compensation,        |
| 3. Astronomical,         | 130. Metronome,           |
| 4. Calendar—             | 132. Regulating           |
| 5. Dial,                 | 131. Torsion.             |
| 6. Roller,               | Safety-wheels—            |
| 53. Cases—               | 136. Barrel,              |
| 54. Cylindrical,         | 137. Center.              |
| 55. Materials,           | 140. Staffs and bearings. |
| 56. Supports,            | 141. Sun-dials.           |
| 23. Electric—            | 57. Watches—              |
| 28. Balance,             | 86. Barrels—              |
| 33. Circuit-controllers, | 87. Mainspring-fasteners, |
| 34. Hand-setters—        | 58. Calendar,             |
| 36. Opposed-lever,       | 88. Cases—                |
| 37. Sliding connection,  | 91. Bezels,               |
| 35. Systems,             | 92. Centers—              |
| 29. Pendulum—            | 93. Integral,             |
| 30. Actuated,            | 89. Convertible,          |
| 31. Regulated,           | 90. Dust-proof,           |
| 32. Synchronizers,       | 103. Hinges,              |
| 25. Primary,             | 94. Movement-rings.       |
| 26. Secondary—           | 95. Pendants—             |
| 27. Escapement,          | 96. Bow-fasteners—        |
| 38. Striking—            | 97. Pin or screw,         |
| 39. Intermittent-signal, | 98. Sleeve,               |
| 24. Systems,             | 99. Stem-fasteners,       |
| 40. Winding—             | 100. Screw,               |
| 41. Self,                | Watches—                  |
| 52. Frames,              | Cases—                    |
| Geographical—            | 101. Springs—             |
| 43. Disk,                | 102. Cover connections,   |
| 44. Globe,               | 59. Movements,            |
| 50. Illuminated,         | 104. Plates,              |
| 51. Leveling devices,    | 105. Protectors,          |
| 45. Magic,               | 60. Repeaters—            |
| 42. Pneumatic,           | 61. Double-snail—         |
| 7. Trains—               | 62. Trains,               |
| 16. Alarm—               | 73. Stem-winding          |
| 17. Eight-day,           | 63. Stem winding and set- |
| 19. Electric—            | tling—                    |
| 20. Let-off—             | 64. Lever-set—            |
| 21. Alarm winding-       | 65. Clutch,               |
| arbor,                   | 66. Yoke,                 |
| 22. Let-off,             | 67. Pendant-set—          |
| 18. Repeating,           | 68. Clutch,               |
| 8. Striking—             | Yoke—                     |
| 9. Cam-controlled,       | 69. Double-gear—          |
| 13. Chimes,              | 70. Cam,                  |
| 14. Graphophone,         | 71. Lever,                |
| 12. Musical,             | 72. Single-gear,          |
| 10. Repeating—           | 74. Stop—                 |
| 11. Double-snail,        | 76. Couplers, pivoted,    |
| 15. Turn-backs,          | 77. Couplers, sliding,    |
| 46. Winding—             | 78. Positive—             |
| 47. Motors, pneumatic,   | 79. Balance-stop,         |
| 48. Motors, spring,      | 75. Split seconds,        |
| 49. Motors, thermal.     | 106. Toy,                 |
| 127. Dials—              | 80. Winding—              |
| 128. Shifting figures.   | 84. Attached keys.        |
| 126. Dials and hands.    | 85. Indicator.            |
| 125. Dial-trains.        | 81. Lever,                |
| 116. Escapements—        | 83. Overwinding-prevent-  |
| 117. Balance—            | ers                       |
| 118. Chronometer,        | 82. Self-winders.         |
| 119. Cylinder,           |                           |



# DIVISION XXIII.—CONTINUED.

## CLASS 234.—RECORDERS. (XXIII.)

(For definitions see Supplement No. 2, p. 2535.)

### Subclasses.

- |                                      |                        |
|--------------------------------------|------------------------|
| 7. Anemometer.                       | Time—                  |
| 8. Cartographic.                     | Watchmen's—            |
| 6. Combined readings.                | Miscellaneous,         |
| 2. Combined recorders and registers— | Stationary-record—     |
| Fare—                                | Time-operated marker,  |
| 3. Individual record,                | Time-operated record—  |
| 4. Total-record,                     | Multiple-key,          |
| 5. Speed.                            | Single-key,            |
| 1.5. Electric.                       | Workmen's—             |
| 5.5. Electric meter.                 | Check-receivers,       |
| 9. Fare—                             | Electric,              |
| 9.5. Electric.                       | Individual card—       |
| 10. Float.                           | Time-impression,       |
| 11. Heat.                            | Intermittently-movable |
| 1. Miscellaneous.                    | Time-printing wheel—   |
| 12. Passenger—                       | Autographic,           |
| 12.5. Electric.                      | Check-operated,        |
| 13. Gate.                            | Individual record—     |
| 14. Seat.                            | Single-impression,     |
| 15. Step.                            | Printing-key—          |
| 16. Power.                           | Operating-lever,       |
| 17. Pressure—                        | Miscellaneous,         |
| 18. Air-brake,                       | Time-operated record—  |
| Gage—                                | Autographic,           |
| 19. Disk.                            | Individual record—     |
| 20. Drum.                            | Single-impression—     |
| 26. Ship's course—                   | Printing-key,          |
| 26.5. Electric.                      | Tag-operated marker,   |
| 27. Signal—                          | Wage-computers.        |
| 27.5. Electric.                      | Time-stamps—           |
| 28. Specific gravity.                | Dial—                  |
| 29. Speed—                           | Movable-dial,          |
| 29.5. Electric,                      | Movable-platen,        |
| Shaft—                               | Drum—                  |
| 30. Continuous-record—               | Movable-drum,          |
| 31. Governor-controlled,             | Movable-platen,        |
| Uniform-amplitude,                   | Electric.              |
| Intermittent-record.                 | Volume—                |
| 21. Steam-engine indicators—         | Electric,              |
| 22. Bourdon type,                    | Meter-readings.        |
| 23. Drum,                            |                        |
| 24. Engine connections,              |                        |
| 25. Indicator-cylinder.              |                        |
| 33.5. Telephone.                     |                        |
| 36. Time—                            |                        |
| 36.5. Electric.                      |                        |
| Watchmen's—                          |                        |
| 37.5. Electric—                      |                        |
| 37.6. Receivers,                     |                        |

## CLASS 235.—REGISTERS. (XXIII.)

(For definitions see Supplement No. 3, p. 2687.)

### Subclasses.

- |                                  |                                  |
|----------------------------------|----------------------------------|
| 128. Alarm mechanism.            | Fare-registers—                  |
| 106. Angled axes.                | Operating devices—               |
| 123. Ball or button indicator.   | Electric,                        |
| 124. Bar-and-scale.              | Punch,                           |
| 125. Belt.                       | Parallel-axes—                   |
| 61. Calculators—                 | Cylinder,                        |
| 64. Adding-pencils,              | Dial-and-hand,                   |
| 68. Ball,                        | Disk,                            |
| 69. Bar—                         | Registering-boxes,               |
| 70. Slide-rules,                 | Resetting—                       |
| 65. Bar-and-disk,                | Direction-indicator,             |
| 71. Belt,                        | Single-axis—                     |
| 66. Cylinder-and-disk,           | Concentric-disk,                 |
| 62. Motor-actuated,              | Cylinder,                        |
| 72. Parallel-axes—               | Dial-and-hand,                   |
| 73. Cylinder,                    | Ticket-delivery.                 |
| 74. Disk—                        | 129. Full-stroke mechanism.      |
| 75. Key-operated,                | 90. Game-boards.                 |
| 76. Gear,                        | 93. Gate and turnstile operated. |
| 58. Recording—                   | 94. Liquid-registers.            |
| 59. Key-operated,                | 130. Locking mechanism.          |
| 60. Key-set,                     | 1. Miscellaneous.                |
| 77. Single-axis—                 | 95. Odometers—                   |
| 78. Concentric-disk,             | 96. Details,                     |
| 79. Cylinder—                    | 97. Trip-and-total.              |
| 80. Keyless—                     | 91. Operating devices.           |
| 81. Lever-operated,              | 131. Overthrow-preventers.       |
| 82. Key-operated,                | 98. Package-operated.            |
| 83. Disk—                        | 108. Parallel axes—              |
| 84. Slide-rules,                 | 110. Cylinder,                   |
| 67. Spiral,                      | 111. Dial-and-disk,              |
| 85. Tabular—                     | 112. Dial-and-hand,              |
| 86. Belt,                        | 113. Disk—                       |
| 87. Cylinder,                    | 114. Hand-operated,              |
| 88. Disk,                        | 109. Gear.                       |
| 89. Sheet,                       | 105. Pedometers.                 |
| 63. Traveling-carriage.          | 127. Pivoted indicator.          |
| 126. Card.                       | 99. Platform-operated.           |
| 4. Cash-recorders—               | 57. Registering ballot-boxes.    |
| 5. Manual.                       | 100. Registering-boxes.          |
| 7. Cash-registers—               | 103. Rotation-counters—          |
| 17. Checks—                      | 104. Timing devices.             |
| 18. Balls,                       | 115. Single-axis—                |
| 6. Departmental,                 | 116. Concentric-disk,            |
| 19. Dial—                        | 117. Cylinder—                   |
| 20. Independent-indicator,       | 118. Single-cylinder,            |
| 21. Lever-operated,              | Dial-and-hand—                   |
| 22. Drawer-operating mechanism,  | Multiple-hand,                   |
| 23. Indicator mechanism—         | Single-hand,                     |
| 24. Shutters,                    | 119. Differential gears,         |
| 25. Tablet-droppers,             | 122. Disk.                       |
| 26. Key-arresters,               | 107. Spiral.                     |
| 27. Key-locks,                   | 101. Stamp.                      |
| 12. Key-operated—                | 132. Stop mechanism.             |
| 13. Detail-adders,               | 133. Transfer mechanism—         |
| 14. Differential mechanism—      | 134. Cam-and-lever,              |
| 15. Key-coupled,                 | 135. Deep-notch,                 |
| 16. Lost-motion mechanism,       | 136. Differential gears,         |
| 8. Key-set—                      | 137. Independent-actuator—       |
| 9. Crank-operated,               | 138. Successive,                 |
| 10. Drawer-operated,             | 139. Intermediate-pinion,        |
| 11. Motor-operated,              | Side-tooth—                      |
| 28. Lid-registers.               | 141. Lock,                       |
| 2. Cash registers and recorders— | 142. Traveling-pawl—             |
| 3. Check-printing.               | 143. Side-action.                |
| 92. Electrically-operated.       | 102. Type-writer word-counters.  |
| 33. Fare-registers—              | 51. Voting-machines—             |
| 35. Belt,                        | 52. Assembly,                    |
| 30. Cab-fare-indicating,         | 53. Check-operated,              |
| 34. Dial-and-cylinder,           | 55. Key-operated,                |
| 49. Hundreds-indicator,          | 54. Key-set,                     |
| 29. Multiple,                    | 50. Recording,                   |
|                                  | 56. Vote-counters.               |
|                                  | 144. Zero-setting devices.       |

## CLASS 161.—TIME-CONTROLLING MECHANISM. (XXIII.)

(For definitions see Bulletin No. 6, p. 6.)

### Subclasses.

- |                         |                               |
|-------------------------|-------------------------------|
| 23. Alarms.             | 24. Time-balls.               |
| Annunciators—           | 15. Timing mechanism—         |
| Electric—               | 16. Culinary,                 |
| 2. Selective-alarm,     | 17. Game,                     |
| 3. Single-alarm—        | 18. Speed,                    |
| 4. Adjustable-pin,      | 19. Telephone-service,        |
| 5. Auxiliary-switch,    | 20. Watchmen's,               |
| 6. Mechanical.          | 21. Workmen's.                |
| 22. Awakeners.          | 7. Valve-actuating mechanism— |
| 11. Lighting mechanism— | 8. Dampers,                   |
| 12. Electric,           | 9. Gas-cocks,                 |
| 13. Electric-light,     | 10. Stock-feeders.            |
| 14. Friction.           |                               |
| 1. Miscellaneous.       |                               |

# DIVISION XXIV.

## EXAMINER DARBY.

CLASSES.—2, Apparel; 223, Apparel Apparatus; 112, Sewing-Machines; 128, Surgery.

### CLASS 2.—APPAREL. (XXIV.)

#### Subclasses.

Body-garments—	Head-coverings—
54. Aprons,	149. Eye-guards,
34. Arm-pit-shields,	108. Hats—
57. Buttonhole-strips,	109. Bands,
58. Button-strips,	110. Brim-bindings,
59. Chest-protectors,	111. Frames,
60. Cloaks,	186. Hangers,
61. Coats—	112. Shades,
62. Collars,	32. Sweats,
53. Hangers,	113. Tips,
63. Shape-retainers,	114. Ventilated,
64. Sleeve-closures,	33. Ventilators,
65. Ventilated,	115. Head-coolers,
66. Collarettes,	116. Head-screens,
67. Collars—	117. Helmets,
68. Cape,	118. Hoods,
69. Closures,	119. Masks,
70. Necktie attachments,	120. Muffs—
71. Necktie-retainers,	121. Ear.
72. Waterproof,	Nether garments—
73. Corsets—	122. Bifurcated,
74. Closures,	123. Bustles,
75. Shields,	124. Edge-protectors,
76. Corset-stiffeners—	126. Gussets and stays,
77. Hinged,	127. Hoop-skirts—
78. Reinforced,	128. Clasps,
79. Cuffs,	129. Hoops,
80. Lap-ropes,	130. Knee-protectors,
81. Linings,	131. Napkins,
11. Neckties—	132. Placket-closures,
82. Bow,	15. Pockets—
83. Made-up,	134. Reinforced,
84. Shields,	151. Safety attachments—
85. Tips,	152. Pocket-book,
86. Overcoats,	153. Watch,
87. Pads—	154. Watch,
88. Shoulder,	135. Skirt-protectors,
41. Shirts—	136. Skirt-supporters,
89. Bosoms,	42. Skirts—
90. Bosom-supporters,	137. Cycling,
91. Collar-supporters,	138. Lifters,
92. Reinforced,	139. Riding,
93. Shoulder-braces,	23. Stockings,
94. Sleeve-adjusters,	140. Suspender attachments,
95. Sleeve-protectors,	141. Trunks,
96. Suspender attachments,	142. Waistbands,
97. Vests,	143. Waist-closures.
98. Waists.	Union garments—
Hand-coverings—	144. Bifurcated,
99. Base-ball,	145. Skirted.
100. Bath,	Trimmings—
101. Boxing,	146. Edgings,
9. Gloves,	147. Embroidery—
102. Mittens,	6. Patterns,
103. Muffs,	148. Pendants,
104. Shields.	16. Plaited,
Head-coverings—	150. Shoulder-straps and
106. Caps—	chevrons.
107. Flap,	

### CLASS 223.—APPAREL APPARATUS. (XXIV.)

#### Subclasses.

1. Charts—	Hat-machines—
2. Adjustable.	31. Shapers,
3. Cloth-pilers.	32. Sizers,
55. Collar, cuff, and bosom machines.	33. Stretchers,
4. Corset-stiffeners, making.	34. Sweat-flangers.
14. Darning-lasts.	35. Needle-holders.
15. Folders.	36. Needle-threaders.
16. Garment-fitters.	37. Needles—
17. Garment-formers.	38. Tape.
18. Garment-forms.	39. Plaiters—
19. Garment-stretchers.	40. Boards,
20. Garment-turners.	41. Crasers,
Hat-machines—	42. Fluters,
21. Blocks,	43. Slotted-bed,
22. Brim-curlers,	44. Vibrating-blade,
23. Brim-heaters,	45. Wavers.
24. Brim-trimmers,	47. Spool-boxes.
25. Brim-wirers,	48. Spool-holders.
26. Cleaners,	49. Spool-stands.
27. Finishers,	50. Spool-tensions.
28. Ironers,	51. Thimbles.
29. Pinners,	52. Trimmings, making.
30. Pouncers,	53. Work-boxes.
	54. Work-holders.

### CLASS 112.—SEWING-MACHINES. (XXIV.)

#### Subclasses.

35. Attachment-holders.	17. Running-stitch.
1. Binders.	18. Setters and threaders.
41. Book-sewing.	31. Sewing hats.
38. Braiders and corders.	19. Sewing looped fabrics.
43. Broom-sewing.	32. Sewing on buttons.
4. Buttonhole.	42. Sewing rugs.
5. Chain and double chain.	20. Sewing shoes.
7. Embroidering.	21. Short-thread.
8. Feeding.	22. Shuttle-machines.
36. Glove-sewing machines.	23. Shuttles and bobbins.
9. Guides.	24. Special machines.
10. Hemmers.	25. Straw.
34. Methods.	26. Take-ups.
29. Miscellaneous parts.	29. Tensions.
11. Needles.	33. Thread-cutters.
37. Needle-clamps.	6. Trimmers.
13. Presser-feet and lifters.	27. Tuck creasers and markers.
14. Quilting.	12. Tucking-guides.
38. Revolving hooks.	40. Turfing fabrics.
15. Revolving-hook machines.	28. Wax-thread.
16. Rufflers and gatherers.	

### CLASS 128.—SURGERY. (XXIV.)

#### Subclasses.

2. Atomizers.	17. Nasal douches.
3. Bandages—	44. Needle holders and cases.
38. Suspensory,	18. Nipples.
39. Water.	20. Obstetrics.
4. Breast-pumps.	21. Pessaries.
32. Capsule-machines.	22. Pharmaceutical.
5. Catamenial sacks.	23. Scarificators and lancets.
9. Depurators.	24. Speculums.
10. Ear.	25. Syringes—
11. Eye.	45. Expanding-arm,
13. Inhalers and respirators—	46. Pile.
42. Mask.	47. Water-bag.
43. Laryngoscopes.	26. Trusses.
28. Miscellaneous.	51. Urinary apparatus.
16. Movement cure.	27. Veterinary.

# DIVISION XXV.

EXAMINER WYNNE.

CLASSES.—17, Butchering; 83, Mills; 130, Threshing; 146, Vegetable Cutters and Crushers.

## CLASS 17.—BUTCHERING. (XXV.)

### Subclasses.

- |                             |                              |
|-----------------------------|------------------------------|
| 8. Butchers' stalls.        | Meat-cutters—                |
| 9. Chopping-blocks.         | 22. Hand,                    |
| Dressing—                   | 23. Rocking-knife,           |
| 10. Fish-dressing machines, | 24. Slicers,                 |
| 11. Hog-scraping machines,  | 25. Trip mechanism.          |
| 12. Intestine-cleaners,     | 26. Meat-mixers.             |
| 13. Skinning.               | Meat-tenderers—              |
| 14. Meat-clamps.            | 27. Hand,                    |
| Meat-cutters—               | 28. Pivoted-head,            |
| 16. Cracklings,             | 29. Rotary,                  |
| 17. Crank mechanism,        | 6. Sausage-machines.         |
| 18. Cube,                   | 7. Scalding and singeing.    |
| 19. Cylinder and block,     | 30. Slaughtering, elevating, |
| 20. Cylinder and concave,   | and suspending.              |
| 21. Double-cylinder,        |                              |

## CLASS 83.—MILLS. (XXV.)

### Subclasses.

- |                            |                              |
|----------------------------|------------------------------|
| Amalgamators—              | Grinding-mills—              |
| 65. Electric,              | 12. Crushing-rolls,          |
| 66. Lead,                  | 14. Cylinder and concave,    |
| 67. Mercury,               | 7. Disk-action, horizontal,  |
| 68. Plate,                 | 8. Disk-action, vertical,    |
| 69. Vacuum,                | 44. Feed-regulators,         |
| 70. Vapor.                 | 15. Grain-samplers,          |
| Bagging grain—             | 16. Grist-alarms,            |
| 26. Bag-holders.           | 23. Hominy,                  |
| Chop-graders—              | 46. Impact-pulverizers,      |
| 50. Bran-dusters, beaters, | 6. Knife-action,             |
| 51. Bran-dusters, brushes, | 1. Mill-spindles,            |
| 49. Electric purifiers,    | 3. Millstone-dress,          |
| 42. Flour processes,       | 4. Millstone-exhaust,        |
| 40. Gravity,               | 2. Millstone-trams,          |
| 39. Rotary bolts,          | 22. Paint,                   |
| 38. Shaking bolts.         | 11. Rotary beaters.          |
| Dust-collectors—           | 73. Mortar-mixers.           |
| 47. Reciprocating,         | Ore and coal—                |
| 48. Rotating.              | 52. Coal-breakers,           |
| Grain-scoopers—            | 53. Crushers,                |
| 32. Centrifugal,           | 63. Ice-crushers,            |
| 36. Concave-face,          | 62. Ice picks and shavers,   |
| 31. Conical,               | 72. Placer-mining,           |
| 30. Cylinder, horizontal,  | Separators—                  |
| 29. Cylinder, vertical,    | 54. Dry,                     |
| 37. Disk-face,             | 58. Jiggers,                 |
| 33. Pestle-action,         | 71. Magnetic,                |
| 35. Reciprocating and end- | 59. Washers,                 |
| less,                      | 56. Sifters and screens—     |
| 34. Screw-action.          | 60. Household,               |
| Grinding-mills—            | 57. Stamps.                  |
| 17. Balancing millstones,  | Preparing grain—             |
| 9. Ball and drum,          | 28. Processes,               |
| 21. Bark,                  | 27. Steaming and dampening.  |
| 45. Chasing,               | 64. Steam-boiler and flue    |
| 18. Coffee,                | scrapers.                    |
| 10. Compound movement,     | 61. Sugar and salt crushers. |
| 13. Cone and shell,        |                              |

## CLASS 130.—THRESHING. (XXV.)

### Subclasses.

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Band-cutters and feeders.    | Grain-separators—            |
| 31. Cane-strippers.             | 18. Oat, seed, and garlic,   |
| 2. Clover-hullers.              | 16. Rotary screens,          |
| 3. Corn-cribs.                  | 19. Screens and riddles,     |
| 4. Corn-husking implements.     | 15. Shaking screens,         |
| 5. Corn-husking machines.       | Straw-carriers—              |
| Corn-shellers—                  | 21. Endless aprons,          |
| 6. Breast and cylinder,         | 22. Overhung rakes,          |
| 7. Disk-action,                 | 23. Reels,                   |
| 9. Ear-grasping,                | 24. Shaking tables,          |
| 10. Implements,                 | 25. Vibrators,               |
| 8. Peripheral action.           | 26. Walking-rakes.           |
| 12. Fans and regulators.        | 14. Granaries and bins.      |
| 33. Feeders for shellers and    | 20. Stackers.                |
| huskers.                        | Threshing-machines—          |
| 13. Flax-threshers.             | 27. Cylinder-machines,       |
| 32. Fruit and vegetable separa- | 29. Dust-conveyers,          |
| tors.                           | 28. Flail-machines,          |
| Grain-separators—               | 30. Vine and seed strippers. |
| 17. Gravity,                    |                              |

## CLASS 146.—VEGETABLE CUTTERS AND CRUSHERS. (XXV.)

### Subclasses.

- |                                  |                    |
|----------------------------------|--------------------|
| 8. Apple-parers.                 | Straw-cutters—     |
| 16. Bunching-machines.           | 34. Feeders,       |
| Crushers and graters—            | Pivoted-knife—     |
| 15. Reciprocating,               | 21. Rake-feed,     |
| 9. Rotary.                       | 22. Roller-feed,   |
| Cutters—                         | 23. Without feed,  |
| 12. Bread,                       | Rotary-wheel—      |
| 7. Reciprocating,                | 24. Follower-feed, |
| 11. Rotary,                      | 25. Rake-feed,     |
| 3. Nut-crackers.                 | 26. Roller-feed,   |
| 14. Peelers and washers.         | 27. Without feed,  |
| 6. Pitters, corers, and eye-cut- | Single-cylinder—   |
| ters.                            | 28. Rake-feed,     |
| 5. Seeders.                      | 29. Roller-feed,   |
| Straw-cutters—                   | 30. Without feed,  |
| Cutter and hed—                  | Sliding-knife—     |
| 17. Reciprocating-knife,         | 31. Rake-feed,     |
| 18. Rotary-cylinder,             | 32. Roller-feed,   |
| 19. Cylinder and concave,        | 33. Without feed.  |
| 20. Double-cylinder,             |                    |



# DIVISION XXVI

EXAMINER SHAW.

CLASSES.—219, Electric Heating and Rheostats; 191, Electricity: Electric Railways; 171, Electricity: Generation; 172, Electricity: Motive Power.

## CLASS 219.—ELECTRIC HEATING AND RHEOSTATS. (XXVI.)

(For definitions see Bulletin No. 15, p. 3.)

### Subclasses.

- |                            |                            |
|----------------------------|----------------------------|
| 19. Heaters—               | Metal heating and work-    |
| 46. Flexible,              | ing—                       |
| 38. Fluid—                 | 3. Shaping,                |
| 40. Fluid in circuit,      | 4. Welding—                |
| 39. Forced circulation,    | 7. Arc system—             |
| 41. Immersion,             | 8. Work in circuit—        |
| 42. Heating-fans,          | 9. Liquid electrode,       |
| 45. Incandescent-lamp,     | 10. Processes,             |
| 47. Inductional,           | 5. Rings,                  |
| 33. Oil-well,              | 6. Tubes.                  |
| 35. Ovens—                 | 63. Resistance elements—   |
| 36. Tubular,               | 75. Carbon,                |
| 37. Radiating-plate,       | 76. Composition,           |
| 34. Radiators,             | 71. Compound-helix,        |
| 20. Systems,               | 64. Embedded—              |
| 21. Tools and instruments— | 65. Fluid,                 |
| 29. Burning—               | 66. Granular,              |
| 30. Branding-stamps,       | 67. Encased coils,         |
| 31. Cauters,               | 72. Granular,              |
| 32. Igniters,              | 73. Lamellar—              |
| 24. Hair-curlers,          | 74. Ribbon,                |
| 22. Heaters—               | 68. Piles,                 |
| 23. Tool-controlled,       | 69. Zigzag grids,          |
| 25. Sad-irons,             | 70. Zigzag helix.          |
| 26. Soldering-irons—       | 48. Rheostats—             |
| 28. Indirectly-heated,     | 50. Compressible—          |
| 27. Solder-feeding,        | 51. Pile,                  |
| 44. Vessels,               | 52. Spring,                |
| 43. Vessels and stands.    | 55. Continuous-resistance— |
| 11. Metal-heating—         | 56. Helix,                 |
| 14. Arc system—            | 57. Liquid,                |
| 15. Work in circuit—       | 58. Penetration,           |
| 16. Liquid electrode,      | 59. Reel,                  |
| 12. Soldering,             | 60. Tapering,              |
| 13. Transformer system,    | 53. Embedded-resistance,   |
| 17. Work-holders—          | 49. Lamp-socket,           |
| 18. Cooled,                | 54. Pile,                  |
| 1. Metal heating and work- | 61. Plug-boxes,            |
| ing—                       | 62. Rectilinear-slide.     |
| 2. Riveting,               |                            |

## CLASS 191.—ELECTRICITY. ELECTRIC RAILWAYS. (XXVI.)

### Subclasses.

- |                                       |                           |
|---------------------------------------|---------------------------|
| 17. Collapsible-tube conductor.       | Systems—                  |
| 1. Conductor supports and insulators. | 4. Battery,               |
| 2. Electric locomotives—              | 8. Circuits, series,      |
| 25. Electric control,                 | 6. Closed conduit,        |
| 26. Electromechanical control,        | 5. Conduit—               |
| 30. Motor on axle,                    | 32. Collectors,           |
| 24. Motor part along track,           | 42. Roadway structure,    |
| 27. Single and multiple motor,        | 9. Converters,            |
| 31. Traveling-dynamo.                 | 41. Current-distribution— |
| 15. General.                          | 11. Overhead—             |
| Sectional conductor—                  | 12. Trolleys—             |
| 18. Connected,                        | 35. Catchers—             |
| 19. Magnetic closers—                 | 36. Drop,                 |
| 33. Magnet on car,                    | 37. Guards and finders,   |
| 34. Magneto-mechanical,               | 38. Ice-clearers,         |
| 21. Mechanical closers,               | 39. Poles and heads,      |
| 20. Traveling closers.                | 40. Stands,               |
|                                       | 22. Telfer and towing.    |

## CLASS 171.—ELECTRICITY. GENERATION. (XXVI.)

### Subclasses.

- |                                  |                                    |
|----------------------------------|------------------------------------|
| Batteries—                       | Meters—                            |
| 73. Thermal.                     | Thermal—                           |
| 23. Friction-generators.         | 270. Fluid-expansion,              |
| 95. Galvanometers—               | 271. Hot-wire,                     |
| 308. Expansion.                  | 272. Time,                         |
| Inductariums—                    | 273. Variable-radius.              |
| 122. Induction-coils,            | 125. Pyromagneto-electric devices. |
| 123. Transformers. Rotary        | Regulators—                        |
| 124. Transformers. Stationary    | 119. Alternating—                  |
| Magneto-electric—                | 241. Compounding,                  |
| Armatures—                       | 242. Inductive resistance,         |
| 205. Disk,                       | 221. Brush adjustment,             |
| 206. Drum,                       | 222. Circuit-interruption,         |
| 207. Pole,                       | 224. Compounding-machines,         |
| 208. Ring,                       | 223. Compound-winding,             |
| 209. Bipolar,                    | 225. Counter electromotive force,  |
| 210. Brushes and holders,        | 226. Engine-control,               |
| 211. Commutators and collectors, | 227. Magnetic reluctance,          |
| 118. Connecting devices,         | 228. Reducing sparks,              |
| 76. Hand-machines,               | 229. Resistance,                   |
| 252. Multipolar,                 | 230. Sectional winding,            |
| 212. Uniform-field.              | 231. Transmitting mechanism.       |
| 34. Meters—                      | 97. Systems of distribution—       |
| 264. Alternating-motor—          | 253. Alternating-direct,           |
| 309. Phase-adjustment,           | 254. Transformer-controllers.      |
| 265. Direct-motor,               |                                    |
| 266. Electrolytic,               |                                    |
| 267. Escapement,                 |                                    |
| 268. Multiple-rate,              |                                    |

## CLASS 172.—ELECTRICITY. MOTIVE POWER. (XXVI.)

### Subclasses.

- |                              |                             |
|------------------------------|-----------------------------|
| 15. Dental instruments.      | 8. Steering and propulsion— |
| 152. Elevators.              | 282. Automatic control,     |
| 36. Motors—                  | 283. Cable control.         |
| 120. Alternating—            | Transmission of power—      |
| 233. Condensers,             | 237. Alternating,           |
| 280. Polyphase,              | 239. Direct—                |
| 274. Regulators,             | 284. Magnetic clutches,     |
| 275. Single-phase—           | 281. Frequency-changers,    |
| 276. Direct-current type,    | 245. Phase-indication,      |
| 277. Distorted-field,        | 238. Phase-modification,    |
| 278. Shifting-field,         | 246. Phase-regulation,      |
| 279. Starters,               | 240. Reciprocating.         |
| 179. Hand-operating devices, |                             |
| 126. Reciprocating.          |                             |

# DIVISION XXVII.

EXAMINER GOULD.

CLASSES.—15, Brushing and Scrubbing; 51, Grinding and Polishing; 68, Laundry; 141, Washing Apparatus.

## CLASS 15.—BRUSHING AND SCRUBBING. (xxvii.)

### Subclasses.

- |                                    |                                      |
|------------------------------------|--------------------------------------|
| 1. Blacking box and brush cases.   | 41. Chimney-cleaners—                |
| 18. Blacking-box holders.          | 42. Flue and stovepipe,              |
| 61. Boot-blackening machines.      | 43. Lamp.                            |
| 2. Boot-cleaners.                  | 43. Combined mop heads and wringers. |
| 4. Broom-machines.                 | 44. Combined scrubbers and mops.     |
| Brooms—                            | 45. Dressing and assorting machines. |
| 19. Broom-heads,                   | Fountain-brushes—                    |
| 20. Household,                     | 46. Blacking,                        |
| 21. Stable and yard,               | 47. Broom,                           |
| 22. Whisk.                         | 48. Hair,                            |
| 23. Brush and broom, bridles.      | 66. Mucilage,                        |
| 24. Brush and broom handles.       | 49. Paint,                           |
| 6. Brush and broom supports.       | 51. Scrubbers,                       |
| 25. Brush-cleaners.                | 50. Shaving,                         |
| Brush heads and faces—             | 67. Slate and blackboard cleaners,   |
| 26. Bath and flesh brushes,        | 52. Tooth,                           |
| 27. Brush and broom fiber,         | 53. Window-cleaners.                 |
| 28. Dusting-brushes,               | Holders—                             |
| 29. Hair-brushes,                  | 54. Brush-head,                      |
| 30. Hat and clothes brushes,       | 55. Convertible mop and brush,       |
| 31. Horse-brushes,                 | 56. Mop-heads.                       |
| 32. Metal-cleaning brushes,        | 68. Lens-cleaners.                   |
| 33. Metallic tuft-fasteners,       | 62. Mats—                            |
| 34. Molded backs,                  | 63. Metallic,                        |
| 35. Nail-brushes,                  | 64. Wire.                            |
| 36. Paint and whitewash brushes,   | 57. Mops.                            |
| 37. Rotary brushes,                | 12. Mop-wringers.                    |
| 13. Scrubbers,                     | 14. Scrubbing-machines—              |
| 38. Shaving-brushes,               | 15. Scrubbing-pails.                 |
| 65. Slate and blackboard cleaners, | 58. Shoe-blackening stands.          |
| 39. Tooth-brushes.                 | 16. Shoe-brushes.                    |
| 7. Brush-machines.                 | 17. Street-sweepers.                 |
| 40. Brush-trimming machines.       | 59. Window-cleaners.                 |
| 8. Carpet-cleaners.                |                                      |
| 60. Carpet-sweepers.               |                                      |

## CLASS 51.—GRINDING AND POLISHING. (xxvii.)

### Subclasses.

- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. Abrading materials and tools. | 7. Metal—                      |
| 17. Boots and shoes.             | Edge-tools,                    |
| File cleaning and resharpening—  | 8. Mower and reaper knives.    |
| 18. Sand blast.                  | 9. Needle-eyes,                |
| Glass and stone—                 | 10. Needles, rods, and points, |
| 3. Curved surfaces,              | 12. Plane surfaces,            |
| 11. Plane surfaces.              | 14. Rumbles,                   |
| Metal—                           | 15. Sheet metal and wire,      |
| 2. Card-grinding,                | 16. Strops, hoes, and rifles.  |
| 4. Curved surfaces,              | Wood—                          |
| 6. Cutlery-scourers,             | 5. Curved surfaces,            |
|                                  | 13. Plane surfaces.            |

## CLASS 68.—LAUNDRY. (xxvii.)

### Subclasses.

- |                              |                                    |
|------------------------------|------------------------------------|
| 1. Bosom-boards.             | 29. Washboards.                    |
| 2. Clamps.                   | 30. Washboilers.                   |
| 34. Clothes-driers.          | 31. Washtubs.                      |
| 12. Clothes-line fasteners.  | Washing-machines—                  |
| 14. Clothes-line reels.      | 15. Agitator,                      |
| 3. Clothes-lines.            | 16. Boiler,                        |
| 5. Clothes-pounders.         | 17. Combined washing and wringing, |
| 6. Clothes sticks and tongs. | 18. Cylinder,                      |
| 7. Fluting-irons.            | 37. Miscellaneous,                 |
| 8. Hand-rubbers.             | 19. Pounder,                       |
| 9. Ironing-machines.         | 20. Reciprocating-rubber,          |
| 10. Ironing-tables.          | 21. Rocking and swinging,          |
| 11. Laundries.               | 22. Roller,                        |
| 13. Mangles.                 | 24. Roller and bed,                |
| 26. Sad-irons.               | 24. Rotary-rubber.                 |
| 27. Sad-iron holders.        | 32. Wringers.                      |
| 28. Starching-machines.      | 33. Wringer-rolls.                 |
| 35. Washbenches.             |                                    |

## CLASS 141.—WASHING APPARATUS. (xxvii.)

### Subclasses.

- |  |                           |
|--|---------------------------|
| 6. Barrel-washers.                       | 10. Dish-cloth holders.   |
| 7. Bottle and can washers.               | 11. Dish-drainers.        |
| 9. Dish-cleaners.                        | 3. Tumbler-washers.       |
| 8. Dish cleaners and drainers, combined. | 5. Wool-washing machines. |

# DIVISION XXVIII.

EXAMINER ANDERSON.

CLASSES. — 123, Internal-Combustion Engines; 60, Miscellaneous Heat-Engine Plants.

## CLASS 123.—INTERNAL-COMBUSTION ENGINES. (XXVIII.)

(For definitions see Bulletin No. 17, p. 14.)

### Subclasses.

198. Accessories.
26. Additional air-supply.
48. Adjustable combustion-chamber.
38. Atmospheric.
27. Burning by highly-compressed air.
19. Charge-forming devices—
  131. Atomizers—
  132. Constant-level.
  124. Automatic dilution,
  121. Combined oil and gas,
  120. Constant oil-supply,
  120. Gas and air mixers.
  120. Governor-controlled,
  122. Heating,
  121. Mixing devices,
  126. Movable carrier,
  127. Multiple oil-supply,
  133. Oil-evaporating—
  134. Extended oil-film,
  134. Submerged air-supply,
  136. Oil-feeding—
  139. Pumps—
  140. Governor-controlled,
  137. Reciprocating,
  138. Rotary.
  125. Oil-intercepting,
  129. Safety devices,
  129. Valve-controlled oil—
  130. Positively-operated.
2. Combined devices—
3. Generating plants,
4. Internal-combustion and fluid-pressure—
5. Fluid-transmission,
6. Waste-heat utilizing.
191. Combustion-chambers.
192. Compensating devices.
21. Convertible cycle.
170. Cooling—
171. Air-cooled,
172. Combined packing and cooling,
173. Cylinder, jacket, and head construction,
174. Heat-dissipating devices,
175. Liquid-impelling devices,
176. Rod and piston,
178. Temperature-regulators,
177. Valve.
193. Cylinder and piston construction.
- Double-acting—
63. Four-cycle,
61. Two-cycle—
62. Combined pump and motor cylinder.
194. Exhaust treatment.
75. Four-cycle—
84. Adjacent supply and exhaust valves,
85. Alined supply and exhaust valves,
87. Longitudinal valve and lever,
86. Opposite supply and exhaust valves,
81. Oscillating valve,
82. Rotating side shaft,
83. Rotating transverse shaft,
80. Rotating valve,
76. Scavenging,
79. Single puppet-valve,
77. Single-revolution,
89. Transverse valve and bell-crank,
88. Transverse valve and lever,
78. Variable clearance.
195. Frame construction.
46. Free piston.
24. Gunpowder.
7. Hammers.
22. Internal combustion and air.
143. Igniters—
144. Flame,
145. Incandescent—
146. Valve-controlled,
- Sparkers—
165. Circuit-closers—
167. Multiple circuit,
168. Primary and secondary control,
166. Single circuit,
150. Combined adjusting and exhaust-regulating,
151. Combined sparker and valve,
152. Combined valve and sparker operating,
149. Dynamos,
148. High-tension,
147. Low-tension,
153. Make-and-break—
164. Adjusting mechanism,
154. Electromagnetic,
160. Oscillating electrode,
162. Piston-operated,
155. Pneumatic,
156. Reciprocating electrode,
158. Rocking and rigid electrodes,
159. Rocking and yielding electrodes,
157. Rocking-electrode hammer-action,
161. Rotary electrode,
163. Stationary-electrode structure,
169. Plugs.
19. Liquid piston.
196. Lubricators.
1. Miscellaneous.
52. Multiple cylinder—
59. Cylinders longitudinal—
60. Cranks coincident,
54. Cylinders offset,
56. Cylinders opposite,
58. Cylinders parallel,
55. Cylinders radiating,
57. Cylinders tandem,
53. Simultaneous expansion.
36. Multiple expansion.
37. Multiple explosion.
51. Multiple piston.
39. Non-compression.
- Oil-engines—
34. External-vaporizing—
35. Four-cycle,
30. Internal-vaporizing—
32. Forced oil-supply—
33. Oil-atomizing,
31. Four-cycle,
- Pump-supply to air-inlet—
28. Four-cycle,
29. Two-cycle.
42. Oscillating cylinder.
18. Oscillating piston.
50. Reciprocating cylinder.
41. Reversible.
8. Rotary—
11. Alternating pistons,
12. Geared pistons,
9. Impact,
10. Reaction,
13. Rotating abutment,
14. Sliding abutment,
16. Sliding piston,
15. Swinging abutment,
17. Swinging piston.
45. Rotary reciprocating piston.
43. Rotating cylinder—
44. Radial.
64. Six-cycle.
23. Solid fuel.

## CLASS 123.—Continued.

97. Speed-regulators—
117. Automatically-controlled igniting device, Charge-omitting—
- Centrifugal governor—
113. Exhaust-valve regulating,
111. Supply and exhaust valve regulating,
112. Supply - valve regulating,
- Inertia-governor—
116. Exhaust-valve regulating,
114. Supply and exhaust valve regulating,
115. Supply - valve regulating,
106. Charge-proportion varying—
107. Exhaust-regulating,
105. Charge-rejecting,
- Charge - volume varying—
110. Automatic cut-off,
109. Supply-valve lift-regulating,
108. Throttling,
99. Combined types—
101. Charge varying and omitting,
100. Charge volume and proportion varying,
102. Electrical,
118. Ignition-omitting,
98. Manually-controlled,
103. Pneumatic,
104. Supply-pump regulating.
179. Starting devices—
180. Combustible - mixture supply,
181. Compressed-air supply,
182. Compression-relieving,
- Starting devices—
183. Gunpowder
184. Igniters,
185. Mechanical—
187. Motors,
186. Spark-delaying.
20. Steam convertible.
197. Transmission mechanism.
65. Two-cycle—
66. Combined pump and motor cylinder,
67. Divided pump discharge,
70. Pump and cylinder adjacent,
71. Pump and cylinder co-axial,
72. Pump and cylinder inclined,
68. Pump compression,
- Rear compression—
73. Crank-case,
74. Cylinder,
69. Separate air and gas pumps.
40. Vacuum-exhaust.
49. Valve-controlled combustion-chamber.
47. Valved piston.
90. Valve-operating mechanism—
91. Four-cycle—
93. Double-loop cam,
94. Intermittently-operated cam,
95. Intermittently-operated tappet,
92. Pneumatic,
96. Two-to-one gearing.
188. Valves—
189. Detachable,
190. Rotary.
25. Water and hydrocarbon.

## CLASS 60.—MISCELLANEOUS HEAT-ENGINE PLANTS.

(XXVIII.)

(For definitions see Bulletin No. 19, p. 8.)

### Subclasses.

2. Atmospheric and solar.
3. Boat and torpedo.
27. Buoyancy.
40. Fluid compounds.
26. Gravity.
- Hot air—
17. Constant mass—
18. Vapor,
13. Continual air-supply—
14. Combustion-products injected—
15. Explosion,
16. Water-injected,
11. Liquid-heated—
12. Spray.
25. Liquefied gas.
1. Miscellaneous.
28. Pressure-generators—
35. Air—
36. Combustion-products injected—
37. Explosion,
39. Electric heater,
38. Moisture-injected,
34. Liquid bath,
- Steam—
29. Air-injected,
- Pressure-generators—
- Steam—
- Combustion-products injected—
30. Explosion,
33. Flasher type,
31. Liquid and gaseous fuel,
32. Solid fuel—
4. Rotary engine—
5. Injector—
23. Separate feed—
24. Wastewater.
- Steam—
9. Air-actuated—
10. Auxiliary,
8. Combustion-products injected.
- Vapor—
19. Vapor,
20. Vapor,
21. Vapor,
27. Explosion.
- Volatile liquid—
- Liquid-burner.



# DIVISION XXIX.

EXAMINER MORRIS.

CLASSES.—147, Coopering; 227, Fire-Escapes; 228, Ladders; 108, Roofs; 157, Wheelwright-Machines; 20, Wooden Buildings; 143, Wood-Sawing; 142, Wood-Turning; 144, Woodworking; 145, Wood-working-Tools.

## CLASS 147.—COOPERING. (XXIX.)

(For definitions see Supplement No. 1, p. 2580.)

### Subclasses.

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| 4. Barrel-compressing machines— | 8. Hoop-drivers—                  |
| 5. Cone.                        | 9. Cam-operated,                  |
| Barrel-head making—             | 10. Hydraulic and steam,          |
| Fixed chuck—                    | 11. Lever-operated,               |
| 37. Rotary scribing-tool,       | 12. Miscellaneous,                |
| 41. Hand-scribers,              | 13. Screw-operated,               |
| 36. Miscellaneous,              | 14. Weight.                       |
| Rotary chuck—                   | 45. Hoop-machines—                |
| 39. Chisel-cutter,              | 46. Lapping and pointing,         |
| 40. Double molding-cutter,      | 43. Lock-cutting,                 |
| 38. Rotary saw.                 | 44. Miscellaneous,                |
| 1. Barrel-making machines.      | 44. Racking.                      |
| 48. Basket-forming.             | Jointing staves—                  |
| 47. Basket forming and nailing. | 28. Converging saws,              |
| 42. Chamfering-tools.           | 29. Disk cutter-head,             |
| Crozing and chamfering barrels— | 26. Inclined molding-heads—       |
| Clamped barrel—                 | 26. Vertically-movable bed,       |
| 13. Rotary cutter-head,         | 35. Longitudinal cutter-cylinder, |
| 24. Hand-crozes,                | 25. Miscellaneous,                |
| Rotating barrel—                | 27. Rotary cutter—                |
| 14. Expandible cutter-head,     | 27. Pattern-feed,                 |
| 15. Rotary cutter-head,         | 30. Single saw—                   |
| 16. Sliding tool,               | 31. Sliding carriage,             |
| 17. Swinging tool.              | 31. Tilting carriage,             |
| Crozing staves—                 | 32. Slicing-knife,                |
| 18. Miscellaneous,              | 33. Sliding plane,                |
| Rotary cutter—                  | 34. Traveling saw—                |
| 19. Endless stave-carriage,     | 3. Curved guide.                  |
| 20. Sliding stave-carriage,     | 3. Setting-up formers.            |
| 22. Swinging,                   | 2. Setting-up machines.           |
| 21. Swinging stave-carriage,    | 35.5. Shaping staves.             |
| 23. Sliding knife.              | 49. Truss-hoops.                  |
| 6. Heading-machines.            |                                   |

## CLASS 227.—FIRE-ESCAPES. (XXIX.)

### Subclasses.

- |                               |                                       |
|-------------------------------|---------------------------------------|
| 1. Automatic speed-governors— | 18. Lazy-tongs—                       |
| 4. Centrifugal,               | 19. Windlass.                         |
| Escapement-check,             | 19. Parachutes.                       |
| 4. Fly-check,                 | 20. Portable spars and towers.        |
| 4. Fluid-check.               | 21. Pulley and brake.                 |
| 5. Accony.                    | 22. Reel—                             |
| 6. Fly-catchers.              | 23. End-brake,                        |
| 8. Clips.                     | 24. Peripheral-brake.                 |
| 9. Con.                       | 25. Rope-brakes, grip-jaw—            |
| 10. Endurable furniture.      | 26. Screw-operated,                   |
| 11. Fire-carriers.            | 27. Wedge.                            |
| 12. Guided.                   | Rope-brakes—                          |
| 13. Hand-p.                   | 28. Tortuous,                         |
| 14. Hoist-rollers.            | 29. Tortuous and grip,                |
| 15. Hoisting trolley.         | 30. Tortuous and screw-operated grip. |
| 15. Lazy-tongs.               | 31. Shooting-lines.                   |
| 16. Rack-and-iron,            | 32. Sliding-poles.                    |
| 17. Screw,                    | 33. Stairway-towers.                  |

## CLASS 228.—LADDERS. (XXIX.)

### Subclasses.

- |   |                          |
|---|--------------------------|
| 1. Building-attached—                     | 17. Propped—             |
| 2. Independent rungs and steps,           | 18. Hinged sections,     |
| 3. Non-collapsible foldable.              | 19. Separable sections,  |
| 4. Collapsible.                           | 20. Slidable sections.   |
| 5. Feet.                                  | 21. Scaling.             |
| 6. Flexible—                              | 23. Separable sections.  |
| 31. Jointed sections,                     | 21. Shutter.             |
| 7. Reel—                                  | 22. Single-stile.        |
| 9. Jointed sections, upwardly-extensible, | 24. Slidable sections—   |
| 10. Single-stile.                         | 25. Stops.               |
| 11. Guards.                               | 26. Store-service.       |
| 12. Hinged sections.                      | 27. Trap-door operating. |
| 14. Ladders.                              | 30. Trolley.             |
| 15. Propped—                              | 28. Truck.               |
| 16. Collapsible,                          | 29. Trussed.             |

## CLASS 108.—ROOFS. (XXIX.)

(For definitions see Supplement No. 2, p. 2557.)

### Subclasses.

- |                            |                        |
|----------------------------|------------------------|
| 2. Adjustable.             | 17. Metallic—          |
| 5. Car—                    | 17. Shingle,           |
| 14. Fabric-lined,          | 20. Standing-seam—     |
| 15. Metal-lined.           | 21. Capped.            |
| 6. Composite—              | 1. Miscellaneous.      |
| 6.5. Fireproof.            | 4. Observatory-domes.  |
| 28. Eaves-troughs—         | 3. Portable.           |
| 29. Hangers,               | 24. Ridges.            |
| 30. Strainers.             | 16. Skylights—         |
| 7. Fabric.                 | 31. Operating devices. |
| 27. Fenders.               | 8. Slate and shingle—  |
| 26. Flashings.             | 9. Laying.             |
| 12. Lap-joint.             | 11. Thatch.            |
| Metallic—                  | 10. Tile.              |
| 22. Interlocking lap-seam, | 23. Trusses.           |
| 13. Miscellaneous,         | 25. Valleys.           |
| 18. Rib-seam—              |                        |
| 19. Capped,                |                        |

## CLASS 157.—WHEELWRIGHT-MACHINES. (XXIX.)

(For definitions see Supplement No. 1, p. 2583.)

### Subclasses.

- |                             |                        |
|-----------------------------|------------------------|
| 13. Axle-box presses.       | 5. Tire-setters—       |
| 1. Miscellaneous.           | 6. Rubber tires,       |
| 2. Rim-compressors.         | 7. Trestles and tanks. |
| 12. Spoke-extractors.       | 8. Tire-tighteners—    |
| 3. Spoke-setters—           | 9. Felly-expanders—    |
| 4. Work holders and guides. | 10. Spoke-clamping.    |
| 11. Tire-removers.          |                        |

# DIVISION XXIX.—CONTINUED.

## CLASS 20.—WOODEN BUILDINGS. (XXIX.)

(For definitions see Supplement No. 1, p. 2577.)

### Subclasses.

77. Ceiling-centerpieces.	Scaffolds—
90. Composite boards.	Brackets—
91. Compound lumber.	86. Shingling,
76. Corner-shields.	81. Miscellaneous,
11. Door and window	82. Swinging,
frames—	83. Trestles,
12. Movable jambs.	87. Window.
71. Door and window	Shutters—
guards—	59. Awning,
72. Body-attached.	58. Miscellaneous,
20. Door and window	60. Registering-slide,
troughs.	Slats—
Doors—	63. Fixed,
38. Braces,	62. Pivoted,
Car—	61. Sliding.
37. Door construction,	61. Slatted floor covering.
Grain—	92. Splices and joints.
28. Horizontal-swing,	79. Stair-covers.
27. Miscellaneous,	10. Stairs.
29. Pivoted side-tilt,	64. Thresholds.
30. Removable,	89. Veneering.
31. Side-slide,	4. Wall construction.
32. Vertical-slide—	5. Weather-boarding.
33. Pivoted-guide,	Weather-strips—
34. Vertical slide and	65. Hinged,
swing,	66. Sills,
21. Miscellaneous,	67. Spring,
Sliding—	69. Packing,
26. Cleats,	68. Sliding.
25. Guide-closures,	57. Window-cranes.
23. Lateral-movement—	Windows—
24. Link-support,	41. Car,
22. Miscellaneous,	40. Miscellaneous,
Door construction—	56. Sash construction,
36. Removable-panel,	Sashes—
16. Miscellaneous,	54. Cushioned,
17. Oppositely-hinged,	52. Sliding-sash,
Rotating,	Sliding and swinging
Sliding—	sash—
20. Jointed,	43. Cord-fastener pivot,
19. Miscellaneous,	44. Guide-rod pivot,
Wickets.	Horizontally - pivoted
Floors—	frame—
7. Composite,	45. Sliding-sash,
8. Interlocking,	42. Miscellaneous,
9. Joist-bridging,	Separable-hinge—
6. Miscellaneous.	46. Side-swing,
95. Framing-sockets.	47. Vertical-swing,
94. Joist connections.	Sliding-frame—
13. Lathing—	Vertically-pivoted
14. Lath-holders,	sash,
73. Mantels.	Sliding-stile—
74. Moldings.	Horizontally - pivoted
75. Mosaics and inlaying.	sash,
93. Nail-hole plugs.	Vertically - pivoted
15. Panels and wainscoting.	sash,
2. Portable houses—	Vertically - pivoted
3.5. Telephone-booths,	frame—
3. Voting-booths.	Sliding-sash,
96. Post-bases.	51. Storm,
Scaffolds—	55. Swinging-sash.
88. Binders,	53. Wooden buildings—
84. Brackets—	1. Miscellaneous.
85. Ladder,	72.5. Wooden columns.

## CLASS 143.—WOOD-SAWING. (XXIX.)

(For definitions see Supplement No. 1, p. 2599.)

### Subclasses.

16. Arc-saw machines.	Reciprocating-saw machines—
17. Band-saw machines—	81. Vibrated-saw—
27. Automatic tension-regulators,	82. Lever-driven,
28. Catchers,	83. Pivoted guides.
18. Centered-log,	4. Resawing-machines—
19. Horizontal-saw,	5. Band-saw.
20. Inclined,	91. Sawbucks.
21. Multiple idlers,	158. Saw cleaners and oilers.
22. Multiple-saw,	159. Saw-guards.
29. Pulley cleaners and lubricators,	160. Saw-guides—
30. Pulleys,	161. Back-disk,
25. Reciprocating-carriage,	162. Back-roller,
23. Retarded-idler,	163. Drag,
31. Saw-lead adjustments,	164. Oilers,
26. Special-feed,	165. Pivoted-arm,
24. Tilting-frame.	166. Sliding-arm,
32. Chain-saw machines.	167. Work-engaging.
33. Circular-saw machines—	Saw-hanging—
35. Adjustable-saw—	155. Circular-saw,
36. Angular,	156. Reciprocating-saw.
37. Lateral,	157. Sawing-machine appliances.
38. Angular—	105. Sawmill-carriages—
39. Centered-log,	106. Friction-feed—
40. Auxiliary-saw,	107. Disk,
49. Chain-feed,	108. Motor-feed,
41. Drop-saw,	109. Oilsetting—
42. Knife-disk,	110. Draft-operated,
50. Lath-feed,	111. Friction-operated,
43. Pile-cutting,	112. Lever-operated,
34. Portable,	113. Track-operated.
51. Pusher-feed,	125. Sawmill-dogs—
52. Reciprocating-carriage—	126. Lever,
53. Automatic-feed,	127. Lever-and-cam,
54. Mechanically-operated,	128. Lever and cooperating gears,
44. Rim-driven,	129. Lever, gear and rack,
55. Roller-feed—	130. Lever, pawl and rack,
56. Gang,	131. Screw.
57. Rotary-carriage,	114. Sawmill set-works—
48. Special-feed,	124. Appliances,
Successive,	115. Automatic,
58. Swinging-carriage,	116. Direct-actuated,
59. Swinging-saw,	117. End dogs,
59. Tilting work-support,	118. Fluid-operated,
47. Traveling-saw.	119. Pawl-and-rack,
1. Combination-machines.	120. Power-operated,
2. Hoop-pole machines—	121. Spring-retracted,
3. Band-saw.	122. Supplemental support,
96. Log deck-blocks.	123. Wedge.
92. Log-transfers—	133. Saws—
93. Pusher-blocks,	134. Bent,
94. Trough-and-kicker.	135. Chain,
97. Log-turners—	136. Dish,
98. Bar-and-chain,	137. Expansion-aperture,
99. Bar and inclined pistons,	138. Gunning-aperture,
100. Bar and parallel pistons,	139. Sectional,
101. Bar-and-piston,	140. Smoothing.
102. Endless,	168. Saw-table gages—
103. Hook,	169. Angular-adjustment—
104. Hook-and-chain.	170. Vertical,
95. Log turners and deck-blocks.	171. Curve-cutting,
86. Miter-boxes—	172. Markers,
87. Adjustable—	173. Roller,
88. Biplane,	174. Sliding—
89. Swinging saw-guide,	175. Link,
90. Swinging work-guide.	176. Rack-and-pinion.
6. Mitering-machines—	132. Saw-tables.
7. Reciprocating-saw.	141. Saw-teeth—
60. Reciprocating-saw machines—	142. Crosscut,
61. Drag—	143. Planer,
62. Automatic-return,	144. Reversible.
63. Crank,	145. Saw-teeth, fastenings—
64. Lever,	146. Bridge-plate,
65. Lever-and-bow,	147. Cap—
66. Lever and gears,	148. Separable-bit,
67. Lever and lazy-tongs,	149. Key,
68. Motor,	150. Key and locking-plate,
69. Oscillatory,	151. Locking-plate,
79. Laterally-adjustable arm,	152. Spring-latch,
80. Piston-connected,	153. Wedge,
84. Roller-feed,	154. Wedge and locking-plate.
70. Scroll—	8. Shingle-machines—
71. Frame,	10. Belt-feed,
72. Free-end saw,	11. Dog-and-step feed,
73. Spring-return,	9. Reciprocating-saw,
74. Swivel-saw,	12. Roller-feed,
75. Special-cut—	13. Tilting-gage,
76. Pattern-guide,	14. Tilting-table—
77. Pivoted work-holder,	15. Rotary carriage.
78. Tilting saw-frame,	85. Tubular-saw machines.



# DIVISION XXIX.—CONTINUED.

## CLASS 142.—WOOD-TURNING. (XXIX.)

(For definitions see Supplement No. 1, p. 2586.)

### Subclasses.

- |                               |  |
|-------------------------------|--|
| 55. Attachments.              | Circular section—                        |
| 47. Carriage-feed.            | Spiral-grooving—                         |
| Circular section—             | Cutter—                                  |
| 17. Automatic spindle-lathes— | Rotary—                                  |
| 20. Chute-feed,               | 23. Roller-feed,                         |
| 18. Endless-feed—             | 23. Hollow cutter-head.                  |
| 19. Disk,                     | 54. Hollow mandrels.                     |
| Clamped-work—                 | 53. Lathes-centers.                      |
| Cutter, chisel—               | 1. Miscellaneous.                        |
| 46. Longitudinally-movable,   | Pattern-section—                         |
| Hollow cutter-head—           | Cam-controlled—                          |
| End-turning,                  | Cutter—                                  |
| Cutter—                       | 12. Laterally-movable,                   |
| 42. Chisel—                   | 6. Laterally and longitudinally movable, |
| 43. Pattern—                  | 14. Longitudinally - movable,            |
| 44. Disk,                     | Rotary—                                  |
| 39. Pattern-guide—            | 10. Fixed bearings,                      |
| 38. Rotary,                   | Clamped-work—                            |
| 40. Rotary—                   | Cutter, chisel—                          |
| 41. Pattern,                  | 8. Laterally and longitudinally movable, |
| 37. Pattern-guide,            | Cutter—                                  |
| Slicing—                      | 9. Rotary,                               |
| 36. Longitudinally - movable, | Copying—                                 |
| Cutters—                      | Cutter—                                  |
| Chisels, plain and pattern—   | 13. Laterally-movable,                   |
| 21. Pattern-guide,            | 7. Laterally and longitudinally movable, |
| Rotary and chisel—            | 15. Longitudinally - movable,            |
| Pattern,                      | Rotary—                                  |
| 32. Hollow cutter-head—       | 11. Fixed bearings,                      |
| Cutter, chisel—               | 3. Many-spindle lathes,                  |
| Pattern—                      | 16. Guided chucks—                       |
| 30. Radially-movable,         | 51. Counterpoises.                       |
| 29. Radially-movable—         | Polygonal section—                       |
| 27. Pattern-guide—            | 2. Annular work-holders—                 |
| 28. Rotary,                   | 52. Chucks,                              |
| 4. Many-spindle lathes—       | Steady-rests—                            |
| 5. Automatic spindle-feed,    | 50. Yielding.                            |
| Spiral-grooving—              | 49. Tool-rests.                          |
| Cutter—                       | 48. Tool-rests and work-supports.        |
| 35. Chisel,                   | 56. Turning-tools.                       |
| 26. Rotary—                   | Work-holders—                            |
| 25. Hollow-mandrel,           | 57. Socket.                              |
| 24. Pattern-guide,            |  |
| 33. Rack-and-pinion feed,     |  |

## CLASS 144.—WOODWORKING. (XXIX.)

(For definitions see Supplement No. 1, p. 2591.)

### Subclasses.

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 306. Bench-dogs—                  | 289. Clamps—                         |
| 307. Clamping,                    | 290. Bench,                          |
| 308. Removable.                   | 294. Box-joint,                      |
| 92. Boring—                       | 296. Door-supporting,                |
| Brush—                            | 295. End and partition,              |
| 94. Multiple-bit,                 | Miter—                               |
| 95. Rotating work-holder,         | 292. Multiple-joint,                 |
| 96. Tilting work-holder,          | 293. Single-joint,                   |
| 113. Hollow-auger,                | 297. Portable—                       |
| Long-work—                        | 299. Extensible-beam,                |
| 107. Automatic step-feed,         | 300. Parallel-screw—                 |
| 108. Hand-operated step-feed,     | 301. Quick-action,                   |
| 109. Traveling-tool,              | 302. Pivoted-lever,                  |
| 110. Multiple—                    | 298. Ship-planking,                  |
| 111. Double-ended bit-stock,      | 303. Straight-beam adjustable-jaw,   |
| 112. Relative lateral adjustment, | 304. U-beam—                         |
| Portable—                         | 305. Quick-action,                   |
| Hand—                             | 291. Rectangular-frame-work.         |
| 104. Angularly-adjustable,        | 1. Combined machines—                |
| 105. Overhead-work,               | 35. Boring and sawing,               |
| 93. Special-work,                 | 36. Planing and matching,            |
| 103. Swinging,                    | 37. Planing, matching, and dividing, |
| 102. Wheel-felly,                 | 38. Planing and polishing,           |
| 97. Wheel-hub—                    | 39. Planing and sawing,              |
| Axial—                            | 40. Riving and shaving,              |
| 98. Stationary bit-stock,         | 41. Shaping and dividing,            |
| 99. Stationary-work—              | 42. Slicing and scoring,             |
| 100. Inclined bit-stock,          | 43. Slicing and shaving—             |
| 101. Opposite rotary bit-stocks.  | 44. Converging knives,               |
|                                   | 45. Tenoning and boring,             |
|                                   | 46. Turning and boring,              |

## CLASS 144.—Continued.

- |  |  |
|--|--|
| Combined machines—                           | 78. Mortising—                         |
| 47. Turning and polishing,                   | Hollow-chisel and bit—                 |
| 48. Turning and sawing,                      | 79. Portable,                          |
| 234. Cork and bung presses.                  | 67. Multiple-chisel—                   |
| 251. Cutter-guards.                          | Portable,                              |
| 252. Cutter-boards and dust-conveyers.       | 68. Oscillating-chisel—                |
| Cutters—                                     | 81. Portable,                          |
| Rotary—                                      | 82. Rotary-cutter—                     |
| 441. Bits,                                   | 83. Portable,                          |
| Cylindrical—                                 | 84. Work-supports.                     |
| 230. Slotted bit-seat,                       | 207. Osier-peelers.                    |
| 221. Spiral-hit,                             | Planers—                               |
| 234. Eccentric segmental bit,                | 129. Bed adjustments,                  |
| 237. Gang,                                   | Beveling—                              |
| 236. Multiple—                               | 124. Lateral,                          |
| Pattern,                                     | Longitudinal—                          |
| Multiple clamping-disks—                     | 125. Inclined work-pocket,             |
| 232. Pivoted-bit,                            | 126. Shifting-cutter,                  |
| 233. Shank-bit,                              | 127. Shifting work-support,            |
| 231. Tangential-bit,                         | 130. Cutter adjustments,               |
| Side-attached hit—                           | 128. Endless-hed,                      |
| 235. Edge-cutting,                           | 123. Endless-cutter carrier,           |
| 219. End-thrust,                             | 114. Miscellaneous.                    |
| 220. Frusto-conical,                         | 121. Reciprocating-cutter—             |
| Miscellaneous,                               | Lateral,                               |
| 218. Polygonal—                              | Rotary-cutter—                         |
| Concave bit-seat,                            | Cylinder—                              |
| 226. Convex bit-seat,                        | 117. Bearings,                         |
| 225. Plane hit-seat,                         | 116. Double surfacers,                 |
| 224. T-slot hit-clamp,                       | 118. Disk—                             |
| Radial arms—                                 | 119. Traveling,                        |
| 226. Plane bit-seat,                         | 115. Scrapers,                         |
| 229. Slotted bit-seat,                       | 120. Stationary-cutter—                |
| Saw—   | 132. Bit adjustments.                  |
| 239. Distorted,                              | 309. Processes.                        |
| Double—                                      | 196. Punching-cutters—                 |
| 222. Intermediate-cutter,                    | 197. Fixed-die,                        |
| Single—                                      | 182. Riving—                           |
| Side-cutter,                                 | 183. Beveling,                         |
| 223. Wobble,                                 | 184. Fixed-knife.                      |
| 238. Solid.                                  | 208. Rossing bark.                     |
| 85. Dovetailing—                             | Shaping—                               |
| 86. Consecutive cutters,                     | 135. Box-trimming,                     |
| 87. Frusto-conical bit,                      | 153. Curved-bar work-support,          |
| 88. Inclined-chisel,                         | 152. Curved-work guide,                |
| 89. Inclined rotary-disk.                    | 136. Grooving,                         |
| Feed and presser mechanisms—                 | 134. Miscellaneous,                    |
| 245. Blank-feeders,                          | 146. Oscillating-knife,                |
| 242. Miscellaneous,                          | Pattern—                               |
| 243. Presser-bars and chip-breakers—         | Cam—                                   |
| 244. Sectional,                              | Cutter-guiding,                        |
| Rolls—                                       | Work-guiding,                          |
| Feed—  | 141. Crank-guided cutter,              |
| 246. Miscellaneous,                          | 140. Gear-guided cutter,               |
| 247. Spring-pressed,                         | 137. Miscellaneous,                    |
| 248. Weighted,                               | 138. Polygonal forms, indexed-work,    |
| 249. Presser,                                | 139. Rotating-table, shifting-cutter,  |
| 250. Sectional.                              | Templet—                               |
| 133. Gaining.                                | 144. Cutter-guiding—                   |
| 280. Glue-applying apparatus.                | 145. Templets,                         |
| 279. Glue-applying and pressing apparatus.   | 145. Work-guiding,                     |
| 278. Machine-work clamps                     | 149. Pattern-knife, swinging-frame,    |
| 90. Matching—                                | 147. Reciprocating-knife,              |
| 91. End.                                     | 148. Reversible-cutter,                |
| 50. Match-making—                            | 150. Rotary-cutter, end-thrust,        |
| 61. Box-filling,                             | 154. Rotary work-carrier,              |
| 59. Coiling,                                 | 151. Universally-jointed cutter-shaft. |
| 57. Cutting and coiling,                     | Shaving—                               |
| 54. Cutting and framing—                     | 155. Fixed-knife—                      |
| 55. Die-punches—                             | 156. Circular knife-hock,              |
| 56. Fixed,                                   | 157. Drum-feed,                        |
| 52. Cutting, framing, and dipping—           | 158. Roller-feed,                      |
| 53. Die-punches,                             | 159. Knife pair—                       |
| 60. Dipping,                                 | 160. Gripper,                          |
| 65. Dipping-frames—                          | 161. Roller-feed.                      |
| 62. Emptying,                                | 162. Slicers—                          |
| 63. Filling—                                 | 167. Arc-cut,                          |
| 64. Hopper-feed,                             | Beveling—                              |
| 58. Framing and dipping,                     | 168. Alternate end-feed,               |
| 66. Splint-feed mechanism,                   | 169. Shifting knife-guide,             |
| 51. Wax and paper.                           | 170. Tilting-gage,                     |
| 49. Miscellaneous single-operation machines. | 171. Tilting-table,                    |
| 216. Miter-cutters—                          | 172. Cylinder—                         |
| 217. Angle-knife.                            | Grooving,                              |
| Mortising—                                   | 173. Radial-knife,                     |
| 69. Auger-cutter—                            | 174. Fixed-knife,                      |
| 71. Automatic step-feed,                     | 180. Hopper-feed,                      |
| 70. Portable,                                | 163. Reslicers,                        |
| 72. Chain-cutter—                            | 181. Roller-feed,                      |
| 73. Portable,                                | 176. Rotary-disk,                      |
| 75. Chisel—                                  | Stay-log—                              |
| Boring and mortising.                        | 177. Oscillating,                      |
| 76. Portable,                                | 178. Reciprocating,                    |
| 77. Chisel-reversers,                        | 179. Screw-feed,                       |
|  | Strip-cutting—                         |
|  | 164. Converging knives—                |
|  | Lathe-feed,                            |
|  | 165.                                   |



# DIVISION XXIX.—CONTINUED.

## CLASS 144.—Continued.

Slicers—	192. Splitting and bundling.
Strip-cutting—	198. Tenoning—
Lathe-feed.	199. Blind-slat—
186. Slivering—	200. Rotary cutters.
189. Gang-saw,	201. Rotary gaining-cut-
190. Planer and fixed-knife.	ters.
191. Receiving and handling	202. Chisel pair,
devices.	203. Rotary gaining-cut-
186. Scoring-plane—	ters.
187. Endless-belt,	204. Multiple-tenon.
188. Rotary.	205. Tenon-turning—
2. Special-work machines—	206. Wheel-spoke,
3. Combined—	209. Venet-lathes—
4. Circular-section.	210. Convertible,
5. Blind and sash cut-	211. Inclined knives,
ting—	212. Knives and knife-blocks,
6. Relishing,	213. Presser bars and rolls,
7. Box-blank,	214. Stay-logs,
8. Chair-round tenoning	215. Strip-cutting attach-
and sawing,	ments.
9. Clothes-pin,	281. Venet-presses—
10. Conveyor-flight,	283. Molding,
11. Handle,	282. Roller.
12. Pin,	Wood-bending—
13. Shingle,	254. Bending and drying,
14. Spool,	255. Bending-rollers,
17. Wheel-felly boring and	270. Bends,
sawing,	269. Clamps,
16. Wheel-hub,	Former—
18. Wheel-spoke tenoning	259. Fixed—
and sawing,	260. Collapsible,
15. Wheel tenoning and	261. End-thrust,
boring,	262. Radial arm and
19. Window - stile - pocket	roller,
cutting,	266. Strap,
Single or combined—	264. Strap-and-lever,
25. Box-hooping,	263. Strap-and-windlass,
26. Comb-teeth cutting,	265. Strap-and-screw,
21. Disk-cutting—	267. Pivotal—
22. Blank sawing, feed-	268. Coiling,
ing, and punching,	258. Hoop-gaging,
23. Rotary tubular-cut-	256. Presses—
ter,	257. End compressors,
24. Sweep-cutter,	271. Steaming.
20. Disk cutting and bor-	Wood-ornamenting—
ing.	276. Articles,
27. Hinge-seat cutting,	272. Embossing—
28. Pencil-wood making,	273. Die-rollers,
29. Piano-hammer felting.	274. Heat-applying,
30. Pin-pointing,	275. Graining,
31. Pin-setting,	277. Processes.
32. Screw-driving,	286. Work-benches—
33. Tray-making,	287. Adjustable stock-rest.
34. Tree-felling.	285. Work-benches and tool-
193. Splitting—	chests combined.
194. Self-feeding—	253. Work-guides.
195. Roller-and-belt.	288. Work-holding stands.

## CLASS 145.—Continued.

22. Cant-dogs.	Handles—
23. Chalk-line holders and	Socket-fastenings—
chalkers.	106. Threaded-tang,
24. Chisels—	99. Transverse-screw
25. Compound,	clamp—
26. Gage.	100. Integral-socket,
27. Cue-trimmers.	Split-socket.
28. Drawing-knives.	101. Handsaws—
29. Drawing-shaves—	31. Attachments,
49. Single-handle.	35. Truss-frame,
29. Hammers—	33. U-frame—
30. Nail-placers.	34. Extensible.
61. Handles—	36. Mallets.
65. Cross-bar—	1. Miscellaneous.
77. Ratchet.	Nail-extractors—
79. Fastenings—	44. Claw-bar—
80. End-cap,	45. Pivoted-fulcrum,
81. Wedge—	40. Hammer-and-anvil,
82. Screw-expanded,	39. Holding-hook,
Hollow—	37. Miscellaneous,
64. Retractable-tool,	Nipper—
62. Magazine—	43. Lever-operated,
63. Registering chambers,	42. Wedge-operated,
75. Ratchet-and-pawl,	41. Nut and screw lifters,
76. Ratchet-clutch,	38. Pivoted grapple-bar.
78. Shield attachments,	46. Nail-sets.
83. Socket-fastenings—	114. Reamers.
84. Bevel-closing—	Saw-handles—
85. Axial-screw—	109. Double-grip,
86. Spring-retracted	108. Miscellaneous,
jaws,	113. Scroll,
87. Rotating-ring—	Spindle—
88. Spring-retracted	112. Longitudinal-socket
jaws,	and tightening-bar,
92. Screw-cap—	110. Side-clamping plates,
93. Spring-retracted	111. Transverse-socket and
jaws,	tightening-bar.
91. Screw-cone,	47. Scrapers.
89. Screw-ring—	48. Scraping-planes.
90. Spring-retracted	50. Screw-drivers—
jaws,	Holding attachments—
94. Sliding-ring—	Side-gripping jaws,
95. Spring-retracted	Shell-guide—
jaws,	51. Spring-operated.
96. Cam-closing—	53. Spiral-tool drivers—
97. Spring-retracted	Forward-pressure—
jaws,	54. Reversible-rotation.
107. Friction-grip,	55. Spokeshaves—
98. Lever-closing,	56. Adjustable mouth-
104. Pivoted-latch,	pieces,
102. Shouldered-tang and	57. Beading-bits,
cap,	58. Gage.
103. Shouldered-tang and	59. Staple-pullers.
side-socket,	115. Tenon-cutters.
105. Sliding-latch,	60. Wedges.

## CLASS 145.—WOODWORKING-TOOLS. (XXIX.)

(For definitions see Supplement No. 1, p. 2588.)

### Subclasses.

Augers—	Bench-planes—
127. Adjustable cutting-lip,	16. Bit-clamps,
123. Countersinks,	17. Bits,
126. Detachable cutters,	6. Chamfering,
124. Expanding, reverse-	7. Core-box,
taper,	9. Flexible-face,
128. Gage attachments,	20. Gage attachments,
116. Miscellaneous,	19. Handle attachments,
118. Pod,	10. Irregular-work,
125. Secondary cutters,	18. Lubricating attach-
122. Square-hole cutters,	ments,
121. Sweeps,	5. Miscellaneous,
119. Tubular—	8. Strip-cutters.
Core-cutters,	60.5. Bit-frames.
120. Twist.	Bit-stocks—
117. Axes—	66. Miscellaneous,
3. Detachable-bit,	70. Ratchet—
4. Gage attachments.	72. Pivoted pawls,
Bench-planes—	73. Sliding pawls—
Adjustable mouth-	74. Changeable-face,
pieces,	71. Straight-crank arm,
11. Bit adjusters—	Straight—
12. Angular,	67. Side-driving shaft,
Longitudinal—	U crank-arm—
13. Pivoted-lever and	Angular bit-shaft,
screw,	69. Speeding-gear.
14. Screw,	68. Box-openers.
21. Box-openers.	

# DIVISION XXX.

EXAMINER SULLIVAN.

CLASSES.—50, Fluid-Pressure Regulators; 67, Lamps and Gas-Fittings; 158, Liquid and Gaseous Fuel Burners; 197, Type-Writing Machines.

## CLASS 50.—FLUID-PRESSURE REGULATORS. (xxx.)

(For definitions see Bulletin No. 6, p. 9.)

### Subclasses.

1. Combined regulators and cut-offs—	Regulators—
4. Diaphragm—	Outlet pressure—
5. Lever,	Diaphragm—
6. Float—	22. Water-protected,
7. Lever,	24. Weight,
3. Liquid transfer,	28. Float—
8. Piston—	31. Lever—
9. Lever,	32. Spring,
2. Valve-balancing,	33. Weight,
10. Multiple regulating devices—	29. Spring,
11. Auxiliary valve—	30. Weight,
12. Venting,	34. Piston—
Regulators—	37. Lever—
13. Balanced pressure,	38. Spring,
14. Inlet pressure,	39. Weight,
15. Outlet pressure—	35. Spring,
21. Diaphragm—	36. Weight,
25. Lever—	20. Valve-balancing,
26. Spring,	16. Varying-resistance—
27. Weight,	17. Automatic weight-varying,
23. Spring,	18. Clock work,
	19. Liquid transfer.

## CLASS 67.—LAMPS AND GAS-FITTINGS. (xxx.)

### Subclasses.

1. Candelsticks—	Lamps—
97. Miners'.	103. Flash,
4. Chimney-holders.	16. Forced-draft,
Chimneys—	17. Independent-reservoir,
92. Composite,	64. No-chimney,
93. Double,	Safety-tube and central-draft—
91. Integral.	104. Draw-bar,
99. Collars and tops.	105. Miscellaneous,
Cut-offs—	106. No-raiser,
53. Automatic,	107. Rack-bar,
54. Pressure.	108. Screw-rod,
89. Distributors.	109. Swiss-screw,
100. Drip-catchers.	85. Special,
121. Explosive-lighters.	29. Street.
Extinguishers—	24. Lanterns—
60. Fluid,	90. Dark,
59. Mechanical,	35. Signal,
61. Pneumatic.	46. Submarine,
101. Fonts.	44. Tubular.
7. Gas-burners—	45. Lantern-holders.
144. Acetylene,	71. Lighting implements.
51. Incandescent—	84. Lighting systems.
122. Block,	Lights—
123. Magnesium,	96. Christmas-tree,
148. Mantles,	50. Decorative,
124. Mantle-supports,	75. Hydrogen-platinum,
125. Miscellaneous,	34. Signal.
52. Regenerative,	95. Oil indicators and fillers.
9. Regulating.	80. Peestals.
Gas-lighting attachments—	61. Pocket-lighters.
126. Conducting-tube,	89. Safety lamps and lanterns.
127. Flame-guards,	116. Spark-catchers.
128. Pilot,	149. Stage-lighting.
129. Self-igniting.	38. Torches.
70. Headlights.	Vapor-burners—
79. Lamp attachments.	Air-mixing—
83. Lamp-boxes.	136. Conducting-plate,
33. Lamp-burners—	137. Heating-jet,
Argand,	138. Retorts,
11. Multiple-wick.	139. Auxiliary-jet,
Lamp-lighting attachments—	151. Contractors' torches,
130. Aperture,	140. Double-flame,
131. Match-scratchers,	141. Heat-conducting,
132. Miscellaneous,	142. Main flame heated,
133. Separable.	143. Miscellaneous.
32. Lamps—	117. Vents.
87. Bicycle—	146. Wick locks, stops, and gages.
150. Supports,	86. Wick-pickers.
39. Bracket,	88. Wick raisers, flat.
76. Carriage,	23. Wicks.
42. Cigar-lighting,	

## CLASS 158.—LIQUID AND GASEOUS FUEL BURNERS. (xxx.)

(xxx.)

(For definitions see Bulletin No. 16, p. 7.)

### Subclasses.

Burners—	Burners—
Gas—	Liquid fuel—
99. Acetylene,	Retort—
101. Burner-caps—	85. Lighting and relighting devices,
116. Regulating,	60. Movable vapor-deflector,
117. Concentric gas and air jet,	56. Oil, steam, or water—
112. Davy lamp diaphragm,	57. Steam-jet,
113. Flame-deflectors,	63. Overlying—
114. Fuel-distributors,	64. Mixing-chamber—
102. Gas-jet attachments—	65. Burner-cap,
103. Convertible,	71. Side-retort,
100. Gas-logs,	81. Starters—
111. Laboratory type,	82. Continuously operated,
115. Lighting devices.	83. Lighting-cup—
104. Multiple—	84. Oil-charge measuring,
105. Independent cut-off,	54. Superheating—
106. Mixing-tube,	55. Burner-cap.
107. Relatively adjustable,	66. Underlying—
109. Pressure-burners,	67. Conducting-plate—
108. Regenerative,	68. Mixing-chamber and burner-cap,
28. Liquid-fuel—	69. Mixing-chamber and burner-cap.
96. Absorbent—	70. Mixing-chamber and flame-deflector,
97. Alcohol-lamp,	72. Wick-feed,
29. Automobile—	73. Spray—
30. Gas-chamber,	77. Atomizers,
31. Starters,	78. End nozzles,
32. Blast-lamp—	76. Oil and air,
33. Hand-torches—	74. Oil, air, and steam,
34. Automatic blow-pipe,	75. Oil and steam.
35. Wick type,	117.5. Processes,
Fuel-feeding—	8. Coal-stove attachments—
Lamp-stove type—	9. Lid-burners.
44. Reservoir—	12. Combined gas and coal.
45. Protector and air-feeding,	13. Combined gas and water vaporizers.
43. Liquid-seal,	11. Combined oil and gaseous fuel.
37. Maintained oil-level—	10. Fire-kindlers.
38. Float-controlled—	1. Furnaces—
39. Liquid-seal,	2. Combined door and burner,
40. Fountain-feed—	7. Gas.
Removable font—	4. Liquid-fuel—
41. Cut-off,	5. Retort—
42. Vertically adjustable burner or tank,	6. Gas-making,
46. Tanks—	3. Locomotive type.
48. Burner cut-off—	118. Gas and air mixers—
49. Retracting-pump,	119. Proportional.
47. Combined oil and gas,	Self-heating tools—
52. Drop-feed,	14. Branding-irons—
50. Force-feed,	15. Gas,
51. Siphon-feed,	16. Hydrocarbon-reservoir,
94. Lamp type—	17. Burning-tools—
95. Water-vaporizers,	18. Gas.
91. Pan or tray—	19. Hydrocarbon-reservoir,
93. Water-surface,	20. Curling-irons—
86. Perforated combustion-tube—	21. Hydrocarbon-reservoir,
89. Combustion-tubes,	22. Roll-heating type.
90. Lighting arrangements,	23. Sad-irons,
87. Trough,	24. Soldering-irons—
88. Wick.	26. Gas.
53. Retort—	27. Hydrocarbon-reservoir,
58. Additional carburizer—	25. Solder-feeders.
59. Central generator,	120. Valves and cleaners—
61. Auxiliary-heater—	121. Pressure-governed.
Subburner,	
79. Coil,	
80. Film,	

## DIVISION XXX.—CONTINUED.

### CLASS 197.—TYPE-WRITING MACHINES. (XXX.)

#### *Subclasses.*

- |                          |                       |
|--------------------------|-----------------------|
| 1. Aliners.              | 5. Cleaners.          |
| 2. Attachments.          | 6. Electrical.        |
| 3. Bar.                  | 7. Index-wheel.       |
| 4. Carriages—            | 8. Keyboards.         |
| 5. Carriage-stops,       | 9. Key-wheel.         |
| 6. Feed mechanism,       | 10. Miscellaneous.    |
| 7. Line-spacing,         | 11. Plate.            |
| 8. Paper-feeding,        | 12. Ribbon mechanism. |
| 9. Platens,              | 13. Stenographic.     |
| 10. Platen-shifts,       |                       |
| 11. Scales and pointers, |                       |



# DIVISION XXXI.

EXAMINER ELY.

CLASSES.—195, Alcohol; 203, Ammonia, Water, and Wood Distillation; 202, Charcoal and Coke; 48, Gas: Heating and Illuminating; 149, Hides, Skins, and Leather; 134, Liquid Coating Compositions; 196, Mineral Oils; 87, Oils, Fats, and Glue; 210, Water Purification.

## CLASS 195.—ALCOHOL. (XXXI.)

### Subclasses.

- |                           |                            |
|---------------------------|----------------------------|
| 1. Beer—                  | 21. Malting—               |
| 4. Preserving—            | 22. Apparatus—             |
| 5. Pasteurizing,          | 23. Cylinders, rotary,     |
| 2. Puffing—               | 24. Malt-stirrers,         |
| 3. Finings and shavings.  | 25. Processes.             |
| 6. Distilled spirits—     | 26. Mashing—               |
| 9. Aging—                 | 27. Apparatus—             |
| 7. Racking racks,         | 28. Digesters and disinte- |
| 10. Processes,            | 29. grators,               |
| 11. Apparatus—            | 30. Fore-mashers,          |
| 12. Stills—               | 31. Mash-tubs—             |
| 13. Columns,              | 32. Rakes,                 |
| 14. Doublers and worms,   | 33. Tubular rakes,         |
| 16. Vapor-filters,        | 34. Hops,                  |
| 15. Rectifying processes. | 35. Processes,             |
| 17. Fermenting—           | 36. Wort—                  |
| 18. Apparatus—            | 37. Hopping,               |
| 19. Vats,                 | 38. Purifying.             |
| 20. Vent-bungs,           | 39. Wines.                 |
| 21. Processes.            |                            |

## CLASS 203.—AMMONIA, WATER, AND WOOD DISTILLATION. (XXXI.)

### Subclasses.

- |                |           |
|----------------|-----------|
| 1. Ammonia.    | 5. Water. |
| 2. Turpentine— | 6. Wood.  |
| 3. Apparatus,  |           |
| 4. Processes.  |           |

## CLASS 202.—CHARCOAL AND COKE. (XXXI.)

### Subclasses.

- |                           |                      |
|---------------------------|----------------------|
| 10. Charcoal—             | 30. Coke—            |
| 1. Kilns,                 | 31. Ovens—           |
| 2. Processes,             | 32. Doors,           |
| 3. Retorts.               | 33. Dumping-bottoms. |
| 4. Coke—                  | 34. Processes.       |
| 5. Ovens—                 | 35. Retort-ovens.    |
| 6. Chargers and discharg- |                      |
| 7. ers,                   |                      |

## CLASS 48.—GAS. HEATING AND ILLUMINATING (XXXI.)

(For definitions see Bulletin No. 11, p. 4.)

### Subclasses.

- |                             |                           |
|-----------------------------|---------------------------|
| 59. Acetylene—              | 61. Acetylene—            |
| 60. Carbide-cartridges—     | 62. Generators—           |
| 1. Conglomerate,            | 63. Water-feed—           |
| 2. Generation and liquefac- | 64. Cells-series,         |
| 3. tion,                    | 65. Ebb-and-flow—         |
| 4. Generator and holder,    | 66. Cells-series,         |
| 5. Generator and mixer,     | 67. Concentric,           |
| 6. Generators—              | 68. Series,               |
| 7. Automatic safety es-     | 69. Expansible carbide-   |
| 8. cape,                    | 70. container,            |
| 9. Carbide-feed—            | 71. Expansible water-     |
| 10. Apron or belt,          | 72. holder,               |
| 11. Cock,                   | 73. Holder-operated—      |
| 12. Dip—                    | 74. Cells-series,         |
| 13. Cells-series,           | 75. Gasometer and         |
| 14. Flap-valve,             | 76. high-pressure         |
| 15. Hand—                   | 77. holder,               |
| 16. Dip,                    | 78. Interior-valve,       |
| 17. Measured charges—       | 79. Rotary-cylinder,      |
| 18. Cartridges,             | 80. Series—               |
| 19. Rotary-carrier—         | 81. Automatic—            |
| 20. Vertical,               | 82. switch,               |
| 21. Stationary,             | 83. Underfeed—            |
| 22. Piston,                 | 84. Valveless—            |
| 23. Plate-valve,            | 85. Displacer,            |
| 24. Pop-valve,              | 86. Flexible-tube,        |
| 25. Screw,                  | 87. Generator-sup-        |
| 26. Slide-valve,            | 88. ported,               |
| 27. Sludge-remover,         | 89. Siphon,               |
| 28. Valves, gas and water   | 90. Tilting,              |
| 29. feed,                   | 91. Inexpansible gas-     |
| 30. Water-feed—             | 92. holder and water-     |
| 31. Capillary—              | 93. feed,                 |
| 32. Adjustable,             | 94. Interlocking devices, |
- |                                |                               |
|--------------------------------|-------------------------------|
| Acetylene—                     | Generators—                   |
| 33. Water-feed—                | 34. Retort—                   |
| 35. Oscillating,               | 36. Furnaces,                 |
| 37. Percolating—               | 37. Hydrogen,                 |
| 38. Pressure-valves,           | 38. Metal-bath,               |
| 39. Pressure-valves,           | 39. Oil—                      |
| 40. Rotary-cylinder,           | 40. Air-injected.             |
| 41. Rotary-grate,              | 41. Automatic-feed            |
| 42. Series,                    | 42. Electric heater,          |
| 43. Underfeed.                 | 43. Jet-mixers,               |
| 44. Carbureters—               | 44. Steam-injected,           |
| 45. Atomizers,                 | 45. Oil and gas injected,     |
| 46. Capillary—                 | 46. Oil and steam inject-     |
| 47. Spiral-passage,            | 47. ed—                       |
| 48. Vertical-screen,           | 48. Air,                      |
| 49. Zigzag-passage,            | 49. Carbureter,               |
| 50. Fixer,                     | 50. Portable,                 |
| 51. Gravity,                   | 51. Water—                    |
| 52. Heater—                    | 52. Carbureter,               |
| 53. Air,                       | 53. Oil-gas,                  |
| 54. Lamps—                     | 54. Wood—                     |
| 55. Gravity,                   | 55. Oil.                      |
| 56. Oil-feed—                  | 56. Holders—                  |
| 57. Float-valves,              | 57. Bell and tank—            |
| 58. Pump,                      | 58. Sectional-bell,           |
| 59. Rotary,                    | 59. Collapsible,              |
| 60. Spray,                     | 60. High-pressure safety-es-  |
| 61. Osmotic,                   | 61. cape,                     |
| 62. Pivoted—                   | 62. Tank.                     |
| 63. Revolving,                 | 63. Mixers—                   |
| 64. Regulating,                | 64. Bell and tank—            |
| 65. Series,                    | 65. Anterior,                 |
| 66. Submerged-blast—           | 66. Posterior,                |
| 67. Coil,                      | 67. Diaphragm,                |
| 68. Surface—                   | 68. Gravity,                  |
| 69. Float.                     | 69. Pump,                     |
| 70. Center and by-pass valves. | 70. Rotary-drum—              |
| 71. Compositions—              | 71. Anterior,                 |
| 72. Carbureting,               | 72. Posterior.                |
| 73. Purifying.                 | 73. Natural.                  |
| 74. Dip-pipes—                 | 74. Processes—                |
| 75. Valved.                    | 75. Acetylene—                |
| 76. Distribution—              | 76. Slow.                     |
| 77. Leakage—                   | 77. Treatment of calcium      |
| 78. Preventing,                | 78. carbide.                  |
| 79. Odorizers,                 | 79. Carbureting,              |
| 80. Regulating pressure,       | 80. Coal,                     |
| 81. Safety devices.            | 81. Coal and oil,             |
| 82. Exhausters.                | 82. Coal and water,           |
| 83. Generators—                | 83. Coal, oil, and water,     |
| 84. Cupola—                    | 84. Hydrogen—                 |
| 85. Accessories,               | 85. Carbureting,              |
| 86. Air and steam inject-      | 86. Oil—                      |
| 87. ed—                        | 87. Air-injected.             |
| 88. Superheated,               | 88. Gas-injected,             |
| 89. Carbon-monoxid.            | 89. Oil and steam injected—   |
| 90. Chargers                   | 90. Air,                      |
| 91. Coal,                      | 91. Producer,                 |
| 92. Coal and oil,              | 92. Purifying,                |
| 93. Coal and water,            | 93. Storage absorption,       |
| 94. Coal, oil, and water,      | 94. Water—                    |
| 95. Electric,                  | 95. Carbureting,              |
| 96. Hydrogen,                  | 96. Continuous,               |
| 97. Oil and steam injected,    | 97. Down-run,                 |
| 98. Producers,                 | 98. Up-and-down run,          |
| 99. Refractory filling,        | 99. Wood.                     |
| 100. Rotary-bottom,            | 100. Purifiers—               |
| 101. Stirrer,                  | 101. Boxes,                   |
| 102. Water—                    | 102. Condensers,              |
| 103. Carbureter—               | 103. Revivifying,             |
| 104. Fixer,                    | 104. Separators—              |
| 105. Retort.                   | 105. Centrifugal,             |
| 106. Oil-gas,                  | 106. Float-valve,             |
| 107. Up-and-down run—          | 107. Trays,                   |
| 108. Interlocking              | 108. Washer and dry purifier, |
| 109. valves,                   | 109. Washer and scrubber—     |
| 110. Water-jacket—             | 110. Float,                   |
| 111. Rotary-bottom,            | 111. Reciprocating,           |
| 112. Water-seal pit,           | 112. Rotary—                  |
| 113. Hydrogen—                 | 113. Vertical,                |
| 114. Carbureter—               | 114. Spray—                   |
| 115. Air,                      | 115. Rotary.                  |
| 116. Floating-oil,             | 116. Retorts—                 |
| 117. Series,                   | 117. Attachments,             |
| 118. Coal,                     | 118. Cleaning,                |
| 119. Coal and oil,             | 119. Compound,                |
| 120. Coal and water,           | 120. Inclined,                |
| 121. Coal, oil, and water      | 121. Lids—                    |
| 122. Retort—                   | 122. Rotary,                  |
| 123. Domestic plants,          | 123. Rotary.                  |
|                                | 124. Vertical.                |

# DIVISION XXXI.—CONTINUED.

## CLASS 143.—HIDES, SKINS, AND LEATHER. (XXXI.)

### Subclasses.

8. Apparatus—	9. Apparatus—
22. Coloring and polishing.	9. Tanning.
19. Endless belts,	11. Tumbling-drums,
16. Helical tools,	10. Vats.
20. Putting out and stretch-	Processes and composi-
ing—	tions—
21. Stretching-frames,	3. Bating,
17. Reciprocating tools—	7. Coloring and polishing,
18. Rocking frames,	6. Currying,
23. Rolling and embossing,	2. Depilating,
14. Rotary cylinders,	1. Deserving,
15. Rotating tools,	4. Tanning,
12. Tables and frames,	5. Tawing.
13. Tanners' tools,	

## CLASS 196.—MINERAL OILS. (XXXI.)

### Subclasses.

1. Apparatus—	Apparatus—
2. Reducing gravity,	Still—
3. Stills—	16. Vacuum,
6. Bottoms,	17. Vapor-outlets.
5. Condensers,	Coal-oil—
7. Feeders,	21. Processes,
8. Films,	19. Retorts—
9. Furnaces and flues,	20. Rotary.
10. Heads,	22. Compositions—
11. Jackets,	23. Burning-fluid.
12. Rotary,	24. Paraffin.
13. Series,	25. Processes—
4. Stirrers and scrapers,	26. Chemical,
18. Supplementary heat-	27. Infecting gases,
ing,	28. Residuum,
14. Tubular,	29. Washing and filtering.
15. Utilizing gases and resi-	
due,	

## CLASS 134.—LIQUID COATING COMPOSITIONS. (XXXI.)

(For definitions see Bulletin No. 7, p. 14.)

### Subclasses.

2. Barrel-lining—	Paint—
3. Bituminous and resin-	49. Fillers,
ous—	55. Gelatinous and gummy,
4. Tar,	47. Luminous,
5. Wax,	58. Pigments—
6. Gelatinous and gummy.	59. Iron salts,
11. Fabric coating and water-	60. Lampblack—
proofing—	61. Reciprocating collec-
13. Bituminous and resin-	tor-plate,
ous—	62. Reciprocating
14. Tar,	scraper,
15. Wax,	63. Rotating burners,
16. Gelatinous and gummy,	64. Rotating collector-
12. Proteids,	plate,
17. Rubber,	65. Rotating cylinder,
24. Furniture-polish.	66. Settling-chambers,
28. Ink—	67. Lead salts—
30. Branding,	68. Attrition process,
31. Copying,	Dry process—
33. Fraud-preventive,	69. Carrier,
32. Indelible,	71. Pots,
35. Printers'—	70. Stack,
36. Bituminous and resin-	72. Treating,
ous,	Wet process—
34. Stamping,	73. Alkali,
29. Sympathetic,	74. Ammonium ace-
32. Treatment,	tate,
37. Writing—	75. French,
38. Powders.	76. Metallic powders,
7. Leather coating and polish-	77. Ultramarine,
ing—	78. Zinc salts,
8. Bituminous and resin-	50. Proteids,
ous—	54. Rubber,
9. Wax,	48. Stains,
10. Gelatinous and gummy.	83. Treatment,
1. Miscellaneous—	56. Vehicles.
30. Treatment.	79. Pyroxylin.
39. Paint—	18. Sizing—
40. Antifouling and insecti-	21. Bituminous and resin-
cidal—	ous—
41. Bituminous and resin-	22. Wax,
ous—	23. Gelatinous and gummy,
42. Tar,	19. Laundry starch and pol-
43. Wax,	ish,
51. Bituminous and resin-	20. Proteids.
ous—	25. Stove-polish.
52. Tar,	26. Varnish—
53. Wax,	81. Treatment.
46. Distemper,	27. Window-frost preventive.
37. Driers,	
44. Fireproof—	
45. Soluble silicates,	

## CLASS 87.—OILS, FATS, AND GLUE. (XXXI.)

### Subclasses.

17. Adhesives.	9. Lubricants.
18. Artificial butter.	12. Refining fat oils.
21. Candles.	13. Rendering.
3. Candle apparatus.	23. Soap articles.
4. Decomposing fats.	16. Soap manufacture.
5. Detergents.	26. Suint.
6. Extracting oils.	19. Wax.
7. Glue.	

## CLASS 210.—WATER PURIFICATION. (XXXI.)

### Subclasses.

Filters—	Filters—
2. Beer,	10. Oil,
19. Chemical-feeders,	11. Porous-wall,
3. Cistern-cleaners,	12. Portable,
4. Cistern-supply,	13. Pressure,
5. Decanters,	14. Rotary-bed,
6. Faucet,	15. Service-pipe,
7. Filtering-faucets,	16. Strainers,
8. Granular-bed,	17. Submerged,
20. Liquid sterilizers,	18. Systems.
9. Materials,	1. Miscellaneous.

# DIVISION XXXII.

## EXAMINER BANCROFT.

CLASSES.—209, Carbonating Beverages; 225, Dispensing Beverages; 221, Dispensing-Cans; 220, Metallic Shipping and Storing Vessels; 226, Packaging Liquids; 62, Refrigeration.

### CLASS 209.—CARBONATING BEVERAGES. (XXXII.)

#### Subclasses.

- |                                |                       |
|--------------------------------|-----------------------|
| 7. Beverages.                  | 15. Gas collection.   |
| 1. Carbonators—                | 16. Gas distribution. |
| 10. Beer—                      | 4. Gas-generators—    |
| 11. Atomizer,                  | 6. Acid-feed siphon,  |
| 12. Pressure,                  | 17. Furnace,          |
| 13. Pump,                      | 5. Rotary-stirrer.    |
| 3. Rotary-mixer,               |                       |
| 14. Spray.                     |                       |
| 8. Carbonators and generators— |                       |
| 9. Portable.                   |                       |

### CLASS 225.—DISPENSING BEVERAGES. (XXXII.)

#### Subclasses.

- |                       |                           |
|-----------------------|---------------------------|
| 1. Beer apparatus—    | 21. Soda-water apparatus— |
| 2. Barrel-taps—       | 22. Bottle-taps,          |
| 3. Draft-tube,        | 23. Faucets—              |
| 4. Driving-tools,     | 24. Foam—                 |
| 5. Faucets—           | 25. Rotary valve,         |
| 6. Foam,              | 26. Mixing,               |
| 7. Pump,              | 27. Nozzles,              |
| 8. Foam-separators—   | 28. Fountains—            |
| 9. Settling-chambers, | 29. Casings,              |
| 10. Followers—        | 30. Pressure-reducers,    |
| 11. Collapsible,      | 31. Pump,                 |
| 12. Pipe-cleaners—    | 32. Syrup-cocks—          |
| 13. By-pass,          | 33. Measuring,            |
| 14. Hot-water,        | 34. Rotary,               |
| Pressure—             | 35. Syrup-tanks—          |
| 15. Air—              | 36. Removable—            |
| 16. Pump,             | 37. Sliding,              |
| 17. Gas—              | 38. Swinging,             |
| 18. Attached chamber, | 39. Valves.               |
| 19. Pump,             |                           |
| 20. Vents.            |                           |

### CLASS 221.—DISPENSING-CANS. (XXXII.)

#### Subclasses.

- |                          |                        |
|--------------------------|------------------------|
| 93. Canteens and flasks. | Hand-oilers—           |
| 1. Filling-cans—         | Feed-controllers—      |
| 2. Closures—             | 43. Bottom,            |
| 3. Cap—                  | 44. Spout,             |
| 4. Screw,                | 45. Stem—              |
| 5. Spout,                | 46. Lever,             |
| 6. Pivoted,              | 47. Forced-feed—       |
| 7. Screw—                | 48. Bottom-actuated,   |
| 8. Plug,                 | 49. Bulb,              |
| 9. Jackets—              | 50. Nozzle-actuated,   |
| 10. Corrugated,          | 51. Pump—              |
| 87. Wire,                | 52. Air,               |
| 29. Wooden—              | 53. Holders—           |
| 88. Closures,            | 54. Rod,               |
| 11. Nozzles—             | 55. Illuminating,      |
| 12. Cut-offs—            | 56. Spouts—            |
| 13. Automatic—           | 57. Cleaning-pins,     |
| 14. Spring—              | 58. Closing-caps,      |
| 15. Pull,                | 59. Vented.            |
| 16. Push,                | 60. Paint-tubes.       |
| 17. Vents,               | 61. Powder-cans—       |
| 18. Detachable,          | 62. Cut-offs—          |
| 19. Rotary—              | 63. Measuring,         |
| 20. Vented,              | 64. Rotary,            |
| 22. Screw,               | 65. Receiving-pockets, |
| 21. Slide,               | 66. Rotary stirrers.   |
| 23. Detachable—          | 67. Tanks—             |
| 24. Reversing,           | 68. Cabinets,          |
| 25. Flexible-tube,       | 69. Drainers—          |
| 26. Pivoted,             | 70. Covered,           |
| 27. Sliding,             | 71. Cup,               |
| 28. Vented,              | 72. Pump—              |
| 89. Tilting stands—      | 73. Covered,           |
| 90. Pivoted—             | Pressure—              |
| 91. Frames,              | 74. Air—               |
| 92. Lift and swing,      | 75. Blow,              |
| 31. Vents.               | 76. Bulb,              |
| 32. Hand-oilers—         | 77. Pump,              |
| 33. Attachments,         | 78. Followers—         |
| 34. Bottom springs,      | 79. Screw,             |
| 35. Compartment,         | 80. Pump—              |
| 36. Drip-catchers—       | 81. Covered,           |
| 37. Return—              | 82. Lift—              |
| 38. Valved,              | 83. Removable,         |
| 39. Vents,               | 84. Nozzle,            |
| 40. Droppers,            | 85. Removable,         |
| 41. Feed-controllers—    | 86. Return suction.    |
| 42. Automatic,           |                        |

### CLASS 220.—METALLIC SHIPPING AND STORING VESSELS. (XXXII.)

#### Subclasses.

- |                             |                                     |
|-----------------------------|-------------------------------------|
| 1. Barrels—                 | Can-closures—                       |
| 2. Corrugated,              | Rip—                                |
| 3. Jackets,                 | 67. Cutting,                        |
| 4. Sectional.               | 68. Strip—                          |
| 135. Baskets—               | 69. Integral—                       |
| 136. Wire.                  | 70. Double-seam,                    |
| 5. Boxes—                   | 71. Key,                            |
| 6. Blacking—                | 72. Wire—                           |
| 7. Handles,                 | 73. Seam,                           |
| 8. Blanks,                  | 74. Screw—                          |
| 9. Closures—                | 75. Bayonet,                        |
| 10. Fasteners,              | 76. Slip—                           |
| 11. Hinges—                 | 77. Multiple-cover,                 |
| 12. Spring,                 | 78. Packed,                         |
| 13. Sliding,                | 79. Sealing grooves,                |
| 14. Compartment—            | 80. Snapping.                       |
| 15. Closures,               | 81. Can-seams—                      |
| 17. Knockdown.              | 82. Crimped—                        |
| 21. Bucket-bottoms.         | 83. Ring,                           |
| 22. Bucket-closures.        | 84. Three-wall,                     |
| 23. Bucket-ears—            | 85. Four-wall,                      |
| 24. Detachable,             | 86. Five-wall,                      |
| 25. Driving,                | 87. Six to twelve wall.             |
| 26. Embossed,               | 88. Canisters—                      |
| Locking—                    | 89. Bottom-feed,                    |
| 27. Ball,                   | 90. Closures,                       |
| 28. Cover,                  | 91. Display.                        |
| 29. Wire.                   | 92. Cans—                           |
| 30. Bucket-handles—         | 93. Blanks,                         |
| 31. Wire—                   | 137. Bottoms,                       |
| 32. Balls.                  | 94. Hermetic closures—              |
| 33. Buckets—                | 95. Fusible,                        |
| 34. Can,                    | 96. Plug,                           |
| 35. Coal—                   | 97. Hermetic sealers,               |
| 36. Blanks,                 | 138. Jacketed,                      |
| 37. Bottoms—                | 98. Lined.                          |
| 38. Integral-foot,          | 108. Casks—                         |
| 39. Integral foot and body, | 109. Soda-water—                    |
| 40. Wooden,                 | 110. Valved.                        |
| 41. Closed,                 | 111. Crates—                        |
| 42. Feeders—                | 131. Knockdown—                     |
| 43. Bottom,                 | Folding—                            |
| 44. Guards—                 | 132. Horizontal-pivot,              |
| 45. Pivoted,                | 133. Horizontal and vertical pivot, |
| 46. Sifting,                | Sectional.                          |
| 47. Garbage,                | 134. Sectional.                     |
| 48. Jackets,                | 112. Pans—                          |
| 49. Lunch—                  | 113. Blanks.                        |
| 50. Compartment—            | Receptacles—                        |
| 51. Nesting—                | 114. Antirust,                      |
| 52. Sectional,              | 115. Garbage—                       |
| 53. Jackets,                | 116. Hoisting,                      |
| 54. Slop—                   | 117. Sinks,                         |
| 55. Closures—               | 118. Vault,                         |
| 56. Disinfecting,           | 119. Wall.                          |
| 57. Liquid-seal.            | 120. Tank attachments—              |
| 58. Can-closures—           | 121. Safety—                        |
| 59. Cap,                    | 122. Float,                         |
| 60. Fasteners—              | 123. Water-jackets.                 |
| 61. Bar,                    | 124. Tank-closures.                 |
| 62. Pivoted,                | 125. Tanks—                         |
| 63. Plug,                   | 126. Transporting—                  |
| 64. Ring,                   | 127. Compartment,                   |
| 65. Rip—                    | 128. Vehicle.                       |
| 66. Breakable,              |                                     |



# DIVISION XXXII.—CONTINUED.

## CLASS 226.—PACKAGING LIQUIDS. (XXXII.)

### Subclasses.

4. Corking-machines	Filling-machines
5. Automatic-feed,	Cut-offs
6. Compressing	Automatic—
7. Automatic-feed,	14. Vent,
8. Hand-tools.	16. Faucets,
28. Filling and corking ma-	17. Gage—
chines—	18. Adjustable,
29. Barrel,	19. Pump—
30. Corking-nozzle,	20. Adjustable,
31. Counter-pressure,	21. Multiple-nozzle,
32. Reciprocating nozzle.	22. Reciprocating nozzle,
9. Filling-machines—	23. Siphon-bottle,
10. Barrel,	24. Siphon-tube,
15. Counter-pressure,	Stoppers—
11. Cut-offs—	25. Internal,
12. Automatic—	26. Valve,
13. Float,	27. Turn-over.

## CLASS 62.—REFRIGERATION. (XXXII.)

### Subclasses.

Air—	8. Implements.
20. Expansion,	16. Lard-coolers.
22. Ice,	18. Liquefaction of gases.
21. Refrigerated surface.	10. Refrigerators.
2. Beer-coolers.	11. Refrigerator-buildings.
3. Corpse-coolers.	12. Refrigerator-cars.
4. Ice-cream freezers—	19. Separation of liquids.
17. External freezing.	13. Water-coolers.
6. Ice-machines.	14. Wine-coolers.

# DIVISION XXXIII.

EXAMINER W. A. COWLES.

CLASSES.—30, Cutlery; 53, Domestic Cooking Vessels; 174, Electricity: Medical and Surgical; 177, Electric Signaling; 72, Masonry and Concrete Structures; 135, Tents, Canopies, Umbrellas, and Canes.

## CLASS 30.—CUTLERY. (XXXIII.)

### Subclasses.

- |                       |                          |
|-----------------------|--------------------------|
| 1. Animal-shears.     | 23. Manicure implements. |
| 3. Can-openers.       | 11. Pruning implements—  |
| 21. Fork-guards.      | 24. Fruit-clippers.      |
| 5. Forks.             | 12. Razors.              |
| 22. Forks and spoons. | 13. Scissors and shears. |
| 9. Knives—            | 14. Twine-cutters.       |
| 20. Gage,             | 15. Wick-trimmers.       |
| 8. Hay,               | 17. Wire-shears.         |
| 10. Pocket.           |                          |

## CLASS 53.—DOMESTIC COOKING VESSELS. (XXXIII.)

### Subclasses.

- |                         |                      |
|-------------------------|----------------------|
| Boilers—                | Pans—                |
| 1. Domestic—            | 6. Bake,             |
| 2. Steamers.            | 7. Frying.           |
| 3. Coffee and tea pots. | 8. Pots and kettles. |
| 4. Corn-poppers.        | 9. Tea-kettles.      |
| 5. Gridirons.           | 10. Waffle-irons.    |

## CLASS 174.—ELECTRICITY. MEDICAL AND SURGICAL. (XXXIII.)

### Subclasses.

- |                            |                            |
|----------------------------|----------------------------|
| 87. Baths.                 | Medical and surgical—      |
| 88. Body-wear.             | 173. Combs and brushes,    |
| 89. Electrodes.            | 174. Electric soles,       |
| 177. Medical and surgical— | 175. Exercising apparatus, |
| 172. Chairs and couches,   | 170. Vaporizers.           |

## CLASS 177.—ELECTRIC SIGNALING. (XXXIII.)

### Subclasses.

- |                         |                      |
|-------------------------|----------------------|
| 311. Alarms—            | 10. Circuit-closers— |
| 314. Burglar,           | 202. Burglar,        |
| 315. Hose,              | 301. Letter-box,     |
| 317. Liquid-level,      | 203. Lock,           |
| 316. Safe,              | 204. Retarded,       |
| 318. Weight-controlled. | 128. Thermal—        |
| 7. Bells—               | 302. Fluid,          |
| 288. Electromechanical. | 303. Fusible.        |

## CLASS 72.—MASONRY AND CONCRETE STRUCTURES. (XXXIII.)

(For definitions see Bulletin No. 21, p. 5.)

### Subclasses.

- |                                |                            |
|--------------------------------|----------------------------|
| 55. Arches—                    | Buildings—                 |
| 56. Bridge—                    | 4. Auditoriums,            |
| 57. Metal-lined,               | 6. Elevators and bins,     |
| 58. Fireplace,                 | 2. Plans,                  |
| 63. Floor—                     | 5. Storage,                |
| 64. Bridge,                    | 7. Vaults.                 |
| 69. Concrete—                  | 10. Cellars—               |
| 70. Externally metal re-       | 11. Caves.                 |
| inforced,                      | 9. Cisterns.               |
| 71. Internally metal re-       | 72. Columns—               |
| inforced,                      | 76. Metal-reinforced,      |
| 67. Tile—                      | 74. Plastic-covered,       |
| 68. Metal-reinforced,          | 75. Plastic-filled,        |
| 65. Tile and concrete—         | 73. Tile-covered.          |
| 66. Metal-reinforced,          | 51. Conduits—              |
| 59. Girders—                   | 52. Culverts,              |
| 62. Attaching,                 | 53. Pipes—                 |
| 61. Metal-reinforced,          | 54. Lined and covered.     |
| 60. Plastic-filled.            | 86. Coping—                |
| 101. Bonding and tying—        | 87. Borders,               |
| 108. Anchors and sockets,      | 88. Chimney-caps,          |
| 102. Bonding,                  | 89. Vault.                 |
| 104. Clamps,                   | 97. Doors.                 |
| 105. Fixing-blocks,            | 77. Foundations—           |
| 106. Joints—                   | 81. Concrete piles,        |
| 107. Block,                    | 78. Machine,               |
| 103. Ties.                     | 80. Piers,                 |
| 8. Bridges.                    | 79. Shoring.               |
| 15. Building elements and sup- | 128. Implements—           |
| ports, integral.               | 129. Bricklaying-machines, |
| 1. Buildings—                  | 132. Gages,                |
| 3. Apartments,                 | 135. Hawks,                |

## CLASS 72.—Continued.

### Implements—

- |                            |                       |
|----------------------------|-----------------------|
| 134. Hods,                 | 16. Walls—            |
| 130. Plastering-machines,  | Block—                |
| 133. Plumbs,               | Faced—                |
| 138. Pointers,             | 35. Attached,         |
| 131. Running-molds,        | 36. Integral,         |
| 137. Scrapers,             | 45. Fiber,            |
| 136. Trowels and floats.   | 41. Hollow—           |
| 100. Manholes and covers.  | 42. Metal-reinforced, |
| 123. Plastering—           | 43. Parallel-spaced—  |
| 124. Plaster-boards—       | 44. Metal-reinforced, |
| 125. Ornaments.            | 37. Solid—            |
| 82. Posts—                 | 39. Angular,          |
| 83. Inseparable bases,     | 38. Interlocked,      |
| 84. Separable bases.       | 40. Metal-reinforced, |
| 109. Reinforcing elements— | Block and plastic—    |
| 111. Bars—                 | 31. Plastic-covered—  |
| 112. Attached shear mem-   | 32. Metal-reinforced, |
| bers,                      | 29. Plastic-filled—   |
| 113. Integral shear mem-   | 30. Metal-reinforced, |
| bers,                      | 17. Faced—            |
| 110. Compound,             | 18. Tile—             |
| 114. Joints,               | 26. Faced elements,   |
| 116. Lathing—              | 22. Flexible-backed,  |
| 121. Corner-heads,         | 24. Framed,           |
| 117. Expanded-metal,       | 25. Interlocking,     |
| 118. Furring and fasten-   | 23. Rigid-hacked,     |
| ing,                       | 19. Wall-anchored—    |
| 119. Wire—                 | 21. Bonded,           |
| 120. Furring and fasten-   | 20. Metal-reinforced, |
| ing,                       | 27. Monolithic—       |
| 122. Spacers,              | 28. Metal-reinforced, |
| 115. Studding.             | 34. Fences,           |
| 98. Sills and jambs.       | Monolithic—           |
| 90. Smoke-flues—           | 47. Hollow—           |
| 95. Bases,                 | 48. Metal-reinforced, |
| 91. Block,                 | 46. Partition,        |
| 94. Lined,                 | 49. Solid—            |
| 92. Sectional,             | 50. Metal-reinforced, |
| 93. Stacks.                | 33. Wood and plastic. |
| 96. Stairs.                | Waterproofing—        |
| 13. Tanks—                 | 126. Cellars,         |
| 14. Lined.                 | 127. Walls.           |
| 85. Telegraph-poles.       | 12. Wells.            |
|                            | 99. Windows.          |

## CLASS 135.—TENTS, CANOPIES, UMBRELLAS, AND CANES. (XXXIII.)

(XXXIII.)

(For definitions see Supplement No. 3, p. 2692.)

### Subclasses.

- |                               |                               |
|-------------------------------|-------------------------------|
| 45. Canes and sticks—         | Umbrellas—                    |
| 46. Umbrella-sticks,          | Covers, linings, and          |
| 47. Modifications and attach- | cases—                        |
| ments.                        | 35. Sight-openings and ven-   |
| 5. Canopies—                  | tilators,                     |
| 7. Bicycle,                   | 48. Drip-cups,                |
| 6. Boat,                      | 25. Folding—                  |
| 8. Hanging covers.            | 26. Sliding-rib,              |
| 9. Canopy-supports—           | 32. Geats,                    |
| 10. Baby-carriage,            | 37. Retainers—                |
| 11. Bicycle,                  | 38. Runner—                   |
| 12. Body-harness.             | 39. Sliding,                  |
| 1. Tents—                     | 40. Spring—                   |
| 3. Frames—                    | 41. Modified runner,          |
| 4. Folding,                   | 42. Stick-hinge locked,       |
| 14. Heaters, lighters, venti- | 43. Turning,                  |
| lators, and doors,            | 44. Tip,                      |
| 15. Pegs, poles, and cover-   | 31. Ribs and stretchers,      |
| fastenings,                   | 29. Rib and stretcher joints— |
| 2. Umbrella type.             | 30. T-head and socket,        |
| 20. Umbrellas—                | 36. Rib-tips, top-protectors, |
| 27. Auxiliary frame-brace,    | and fasteners,                |
| 16. Combined—                 | 28. Runners and notches,      |
| Umbrellas and canes—          | 22. Self opening and closing— |
| 17. Imitation cane-case,      | 24. Handle-release,           |
| 18. Independent-stick,        | 23. Tensioned rib and         |
| 39. Covers, linings, and      | stretcher,                    |
| cases—                        | 21. Suspended.                |
| 34. Covers and linings, de-   | 13. Umbrella-supports.        |
| tachahle,                     |                               |

# DIVISION XXXIV.

EXAMINER SIMPSON.

CLASSES.—188, Railway-Brakes; 105, Railway Rolling-Stock; 104, Railways.

## CLASS 188.—RAILWAY-BRAKES. (XXXIV.)

### Subclasses.

- |                               |                                |
|-------------------------------|--------------------------------|
| 16. Automatic—                | 14. Fluid-pressure—            |
| 17. Draw-bar actuated—        | 15. Train-pipe-release valves, |
| 19. Centrifugal governor,     | 8. Train-pipe stop-cocks,      |
| 18. Winding,                  | 15. Triple valves,             |
| 20. Push-rod actuated—        | 6. Vacuum.                     |
| 21. Winding.                  | 40. Hand-levers—               |
| 22. Beams.                    | 41. Ratchet-drum,              |
| 23. Brake-flange on wheel.    | 42. Ratchet-segment.           |
| 24. Brakes.                   | 70. Hangers—                   |
| 25. Brake-shoes—              | 84. Non-chattering.            |
| 82. Back-stiffeners,          | 43. Load-regulated.            |
| 26. Chills,                   | Locomotive—                    |
| 27. Composite faces,          | 44. Connected series,          |
| 28. Fasteners,                | 45. Shoes between drivers.     |
| 29. Non-metallic,             | 46. Positive lock.             |
| 30. Rail,                     | 47. Rail—                      |
| 31. Recessed faces,           | 48. Grippers—                  |
| 69. Roller.                   | 74. Automatic,                 |
| 32. Conduit-slot.             | 75. Rotary.                    |
| 33. Disk on axle—             | 76. Safety-catches.            |
| 34. Brake-band,               | 77. Setting devices.           |
| 35. Peripheral shoes,         | 49. Slack-adjusters—           |
| 36. Side shoes.               | 50. Ratchet-bar,               |
| 37. Electric—                 | 51. Ratchet-driven screw.      |
| 38. Magnetic clutch—          | 52. Staffs—                    |
| 39. Winding-drum,             | 53. Friction-clutch handles,   |
| 40. Magnetic shoes,           | 54. Geared,                    |
| 41. Solenoid-operated.        | 55. Locking-ratchets,          |
| Fluid-pressure—               | 56. Ratchet-handles—           |
| 1. Automatic,                 | 57. Pivoted,                   |
| 9. Brake-piston indicators,   | 58. Screw.                     |
| 10. Brake-release valves,     | 59. Winding attachments.       |
| 2. Derailment—                | 60. Top shoes.                 |
| 81. Frangible devices,        | 61. Train-operated—            |
| 3. Direct,                    | 62. Rotary shafts,             |
| 4. Electric,                  | 63. Winding.                   |
| 7. Engineers' valves,         | 78. Trip-controlled—           |
| 11. Load-regulated valves,    | 79. Frangible devices.         |
| 5. Momentum-pump—             | 80. Track-circuit controlled.  |
| 71. Governors,                | 64. Wheel and rail—            |
| 12. Pressure-retainers,       | 65. Chock-block.               |
| 83. Signals,                  | Winding—                       |
| 72. Speed-controlled,         | 66. Pneumatic shift.           |
| 73. Strainers and drain-cups, | 67. Winding-axle.              |
| 13. Train-pipe couplings,     | 68. Winding-drum.              |

## CLASS 105.—RAILWAY ROLLING-STOCK. (XXXIV.)

### Subclasses.

- |  |                                |
|--|--------------------------------|
| 4. Axles—                                | 262. Cars—                     |
| 258. Divided—                            | Expansible,                    |
| 66. Fixed middle bearings,               | 75. Express—                   |
| 67. With couplings,                      | 76. Burglar-proof,             |
| 68. Wheel-attaching devices,             | 76. Floor-frames,              |
| 68. With sleeved and fixed wheels.       | 15. Freight—                   |
| Bevel-ended—                             | 192. Frames,                   |
| 69. Non-telescoping.                     | 77. Fruit,                     |
| 63. Car-movers—                          | 78. Removable covers,          |
| 132. Flange or axle grip,                | 193. Removable side sections,  |
| 70. Pinch-bars—                          | 79. Rolling,                   |
| 71. With rail-grip,                      | 194. Running boards and rails, |
| 73. Traction-wheels.                     | 60. Stakes—                    |
| Cars—                                    | 183. Releasable,               |
| 133. Bell-cord hangers,                  | 173. Side-folding,             |
| 74. Dining,                              | 174. Steps and platforms,      |
| 14. Dumping—                             | 195. Hand—                     |
| 184. Convertible flat and hopper bottom, | 16. Geared,                    |
| 185. Hopper-bottom,                      | 196. Lamp arrangement,         |
| Inclined-bottom—                         | 197. Merchandising,            |
| 186. Side doors,                         | 198. Open street—              |
| 187. Inwardly-tilting sections,          | 80. Seats,                     |
| 188. Outwardly-tilting sections—         | 81. Side guards,               |
| 189. Displaceable sides,                 | 19. Passenger—                 |
| 190. Tilting-body—                       | 5. Baskets,                    |
| 191. Displaceable sides,                 | 199. Double-deck,              |
|  | 200. Dust-guards,              |
|  | 82. Emergency-exits,           |

## CLASS 105.—Continued.

### Cars—

- |                                  |                               |
|----------------------------------|-------------------------------|
| 201. Passenger—                  | 119. Springs—                 |
| 202. Frames,                     | Coil and rubber,              |
| 83. Head-rests,                  | 120. Conical volute,          |
| Individual safes,                | 121. Elliptic—                |
| Platform extensions—             | 122. Cap and bed plates,      |
| 84. With gates,                  | 123. Multiple-disk,           |
| 204. Platforms,                  | 134. Pneumatic,               |
| 205. Seat and door arrangement,  | 124. Rubber—                  |
| 85. Steps—                       | 125. Cap and bed plates,      |
| Extension—                       | 126. Zigzag.                  |
| 86. Folding,                     | 26. Starters.                 |
| 87. Sliding,                     | 27. Starters and brakes.      |
| 88. With gate,                   | 237. Suspended.               |
| 21. Safety-bridges,              | Trains—                       |
| 23. Sleeping—                    | 238. Power-transmitters.      |
| 90. Berth-guards,                | 32. Trucks—                   |
| 206. Berth-locks,                | 135. Antifriction-wheels,     |
| 207. Compartment arrangement,    | 103. Bolsters—                |
| 208. Convertible seat and berth, | 104. Cast,                    |
| 89. Curtains and rods,           | 105. Guides,                  |
| 209. Hinged berths,              | 106. Pressed-steel,           |
| 91. Ladders,                     | 107. Trussed,                 |
| 210. Partitions,                 | 257. Cable-grip,              |
| 211. Seat-back and upper berth,  | 108. Center bearings—         |
| 212. Suspended berths,           | 109. Pressed-steel,           |
| 28. Steam street,                | 11. Changeable-gage,          |
| 31. Street—                      | Curve-adjusters—              |
| 213. Awnings,                    | 136. Swiveled-wheel,          |
| 92. Convertible open and closed, | Electric-motor—               |
| 35. Hand-straps,                 | 239. Bogies,                  |
| 214. Reversible,                 | 240. Equalizing-levers,       |
| 93. Storm-fronts,                | 241. Motor-supporters,        |
| 61. Vestibule.                   | 242. Rigid-frame,             |
| 94. Derailment-guards—           | Four-wheel—                   |
| 215. Inclined wheels,            | 243. Bogies,                  |
| 95. Rail-interlocking,           | Curve-adjusters—              |
| 96. Supplemental wheels.         | 137. Axles, radial,           |
| 17. Locomotives—                 | 138. Axles, sectional,        |
| 217. Belt-gearing,               | 111. Frames—                  |
| 97. Draw-bar lifters,            | 112. Pressed-steel,           |
| 259. Electric—                   | 113. Pedestals,               |
| 218. Belt-gearing,               | 114. Safety-supporters,       |
| 219. Friction-roller driven,     | 115. Side bearings,           |
| 220. Geared,                     | Six-wheel—                    |
| 221. Intermittent-grip,          | 244. Bogies,                  |
| 222. Longitudinal gear-shafts,   | Curve-adjusters—              |
| 223. Longitudinal worm-shafts,   | 139. Axles, radial,           |
| 224. Friction-roller driven,     | 245. Supplemental.            |
| 225. Intermittent-grip,          | 246. Velocipedes—             |
| 227. Longitudinal shafts,        | 247. Bicycle attachments,     |
| 228. Rack-rail,                  | 248. Geared.                  |
| 226. Swinging-bogie,             | Wheel-bodies—                 |
| 98. Telescoping pilots,          | 140. Cast in tires,           |
| 260. Tenders,                    | 141. Cast on hubs.            |
| 99. Traction-increasers—         | 33. Wheel-fenders—            |
| 175. Electric,                   | 249. Car and truck equalizer, |
| Gripping drivers.                | 250. Combined brake,          |
| Mail-bag delivery—               | 251. Fixed-scoop,             |
| 230. Car-forks,                  | 252. Folding hinged-scoop,    |
| 231. Catchers and cranes,        | 253. Hinged-scoop,            |
| 232. Cranes,                     | Inclined—                     |
| 261. Projectors.                 | 127. Tilt-up front,           |
| Motors—                          | 128. Obstacle-projectors,     |
| 102. Manually-operated,          | 254. Pilot type,              |
| 101. Spring,                     | Rotary—                       |
| 100. Tread-power.                | 129. Positively-driven,       |
| Sanding devices—                 | 130. Trip and drop-scoop.     |
| 176. Chain-feed,                 | 255. Trip and shoot forward,  |
| 263. Fluid-pressure,             | 256. Wheeled-scoop,           |
| 177. Oscillatory-feed,           | 131. Wheel-tread.             |
| Reciprocatory-feed—              | Wheels—                       |
| 178. Horizontal,                 | 146. Bushings,                |
| 179. Vertical,                   | 147. Counterbalances,         |
| 180. Rotary-feed.                | 148. Epicyclole,              |
| 233. Single rail—                | Flanges—                      |
| 234. Side guides—                | 149. Independent-move-        |
| 235. Locomotives.                | ment,                         |
| 236. Single top and bottom rail. | Integral—                     |
| 181. Sound-deadening devices.    | 150. Cast—                    |
| 24. Springs—                     | 151. Hollow webs,             |
| 117. Coil—                       | Spokes—                       |
| 118. Cap and bed plates,         | 153. Cast-in,                 |
|                                  | Metallic—                     |
|                                  | 154. Detachable,              |
|                                  | 155. Wooden,                  |
|                                  | 156. Tire-fasteners—          |
|                                  | 157. Bolted lap-flanges,      |
|                                  | By casting,                   |
|                                  | 159. Integral lugs,           |



# DIVISION XXXIV.—CONTINUED.

## CLASS 105.—Continued.

Wheels—	Wheels—
Tire fastners—	Webbs—
160. Transverse intermedi-	169. Sheet-metal disks—
ate keys,	Single,
Tires—	Split castings—
Cushioned—	170. Detachable tires,
161. Metallic springs,	171. Wooden,
162. Rubber,	Webbs and tires—
163. Wooden blocks,	172. Pressed-steel.
164. Loose,	182. Wheel-tread surfaces—
165. Non-metallic,	142. Form,
Webbs—	143. Multiple,
167. Sheet-metal disks—	144. Peripheral rollers,
168. Non-metallic filling,	145. Recessed.

## CLASS 104.—RAILWAYS. (XXXIV.)

### Subclasses.

154. Balloon.	22. Signals—
114. Bridge-guards.	174. Switch,
49. Buffers.	175. Time—
1. Car-replacers—	170. Retarders,
161. Car-attached,	70. Train-order.
162. Hinged blocks,	94. Signals, automatic—
163. Rigid blocks,	122. Agitated,
164. Shifting jacks.	123. Block,
63. Compensators—	124. Crossing,
148. Intermittent-grip,	71. Danger,
149. Slot,	72. Setting apparatus,
150. Weight.	73. Tappets,
40. Crossings—	74. Trips.
116. Movable-rail—	61. Sledways.
117. Stub.	95. Switch-chairs.
3. Deadening noise.	115. Switch-pieces.
75. Deflection-stands.	96. Switch-rods.
76. Detector-bars.	25. Switch-stands.
4. Elevated—	12. Switches—
131. Bicycle,	23. Automatic—
146. Cable rail,	77. Safety,
181. Suspended ways—	127. Derailing,
180. Switches.	155. Electric—
165. Endless carrier.	198. Controller-operated,
50. Foot-guards.	Electrofluid pressure—
5. Frogs—	199. Car-controlled,
99. Movable-rail—	125. Lap,
118. Lap,	26. Pneumatic,
119. Stub,	78. Safety,
98. Spring-rail.	152. Slip,
35. Grippers—	79. Spring,
87. Automatic-release,	126. Stub,
130. Coal-car,	24. Tramway—
88. Friction,	170. Horse-treads,
89. Friction-belt,	171. Point-throwers,
132. Overstepping,	172. Track-cams.
90. Roller,	Switches and signals—
91. Sprocket-wheel,	Electric—
92. Whelp-wheel.	200. Return-indication,
7. Hose bridges—	202. Trolley-actuated
167. Overhead,	switches,
168. Under-rail.	203. Trolley-contacts,
8. Inclined plane—	204. Staff systems.
113. Traction.	Track—
39. Interlocking—	178. Highway,
105. Rods,	14. Miscellaneous,
101. Selectors,	45. Portable—
106. Stands—	112. Crossovers.
120. Catch,	Track-cleaners—
121. Plunger.	65. Blade and broom,
133. Logging.	36. Centrifugal,
Moving train—	37. Dumpers,
205. Passenger-transfer.	38. Elevators,
111. Pleasure-railways.	56. Explosive,
179. Pneumatic—	100. Flangers—
177. Motor-charging.	176. Rotary,
21. Signals—	102. Vibrating,
42. Automatic alarm,	103. Hot plows,
67. Bar,	153. Oilers and washers,
Detonating—	51. Plows,
157. Automatic,	58. Removing weeds,
158. Car-placers,	66. Snow-guards,
201. Electric,	57. Stock-alarms.
159. Hand-placers,	110. Track-curves.
160. Torpedoes,	16. Track-layers—
182. Electric—	173. Tampers.
183. Block,	17. Track-platforms.
184. Block-crossing,	18. Traction—
185. Block systems,	80. Cable-shields,
186. Cab—	81. Crossing conduits,
187. Sectional rail—	82. Crossing streams,
188. Relay,	83. Curves,
189. Car,	207. Draft-cable.
190. Lock,	53. Running and carrying
191. Sectional rail—	rope,
192. Cab and block,	84. Slot-closers,
193. Crossing,	85. Slot-switches,
194. Electromanual lock,	86. Take-ups,
195. Lock,	47. Underground.
196. Track instruments,	48. Transfer-tables.
197. Trolley,	64. Truck-changers.
68. Light,	19. Turn-tables.
27. Pneumatic—	62. Yards and plants—
104. Automatic,	208. Smoke-jacks.
69. Portable,	

# DIVISION XXXV.

EXAMINER NIXON.

CLASSES.—24, Buckles, Buttons, Clasps, Etc.; 40, Card, Picture, and Sign Exhibiting; 241, Garment-Supporters; 116, Signals; 132, Toilet.

## CLASS 24.—BUCKLES, BUTTONS, CLASPS, ETC. (XXXV.)

(For definitions see Bulletin No. 14, p. 14.)

### Subclasses.

2. Album-fastenings.			
3. Article-holders—			
4. Chatelaine safety-hooks,			
5. Flower—			
6. Pin-attached,			
7. Napkin—			
8. Hook,			
9. Neck-inclosing,			
10. Pencil—			
11. Clasp-attached,			
12. Pin-attached,			
13. Pin-attached,			
14. Reel,			
15. Sleeve.			
30.5. Bag-fasteners.			
16. Bale and package ties—			
20. Metal bands—			
21. Separate connections—			
22. One-piece—			
23. Sheet-metal,			
24. Pivoted parts,			
25. Wedging parts,			
26. Wire,			
17. Packet-holders—			
18. Cord,			
19. Strap-tighteners,			
27. Wire—			
28. Separate connections—			
29. Wire,			
30. Wooden bands.			
31. Belt-fasteners—			
33. Hinged,			
34. Lacing,			
35. One-piece—			
36. Deflecting-prong,			
37. Screw-clamp,			
38. Splices,			
32. Tighteners,			
39. Wire,			
163. Buckles—			
Combined pressure-bar and guard—			
185. Hook-attached,			
184. Garment-shielded,			
164. Harness—			
168. Clamping—			
169. One-piece,			
170. Pivoted part or lever,			
171. Sliding part or wedge,			
165. Combined buckles and snap-hooks,			
172. Cross-balls—			
173. Pivoted stud-plate,			
174. Rigid-stud,			
166. Lock—			
167. Key,			
183. Loop-shields,			
Penetrating-tongue—			
175. Guarded,			
177. Multiple,			
176. One-piece,			
178. Pivoted—			
179. Lever-actuated,			
180. Stud,			
181. Sliding part or wedge,			
182. Strap-loops and attaching devices,			
197. Looped-strap,			
198. One-piece—			
199. Hook-attached,			
200. Looped-strap,			
Penetrating-prong—			
186. One-piece—			
187. Hook-attached,			
188. Pivoted—			
189. Hook-attached,			
190. Slide,			
191. Pivoted-lever—			
192. Hook-attached,			
193. Looped-strap,			
194. Buckles—			
Sliding part or wedge—			
195. Hook-attached,			
196. Looped-strap.			
40. Buttons.			
90. Buttons and fasteners—			
91. Adjustable,			
92. Cloth shanks and covers,			
113. Covers,			
94. Deflecting prong or rivet—			
95. Anvil or plate,			
96. Integral,			
97. Hinged-leaf—			
98. Axially-rotating,			
99. Double,			
100. Sliding,			
101. Integral or rigid stud,			
102. Link,			
93. Multiple attachment,			
114. Pads,			
103. Pin-attached,			
104. Separable—			
105. Screw,			
106. Spring—			
107. Resilient-head,			
108. Resilient-socket,			
109. Rotating-head,			
110. With operating devices,			
111. Separate thread-bar,			
100.5. Sliding-bar,			
112. Spiral fastener.			
243. Clasp—			
244. Ball or roll,			
245. Button and loop—			
246. Pivoted or resilient arms,			
247. Slide,			
248. Pivoted—			
249. Broom or handle,			
250. Separate lock-lever,			
251. Sliding-lock,			
252. Spring—			
253. Axial-coil,			
254. Broom or handle,			
262. Protected jaws,			
255. Resilient—			
256. Circular,			
257. Broom or handle,			
258. Separate lock-lever,			
259. Sheet-metal,			
260. Sliding-lock,			
261. Wire,			
263. Sliding-jaw,			
264. Wedge-slot.			
137. Clothes-pins—			
138. Kerf,			
139. Wire.			
115. Cord and rope holders—			
116. Chain,			
123. Couplings and sockets—			
124. Nut-clamp,			
125. Screw-clamp,			
126. Sliding part or wedge,			
127. Friction-disk,			
128. Knot-engaging,			
117. Lacing-terminals—			
118. Friction-disk,			
119. Knot-inclosing,			
120. Pivoted-jaw,			
121. Resilient-clip,			
122. Wire,			
One-piece—			
129. Wedge-slot,			
130. Wire.			
132. Pivoted-part—			
134. Cam-lever,			
133. Lever-tension,			
135. Screw-clamp,			
136. Sliding part or wedge.			
41. Cuff-holders—			
42. Adjustable,			
43. Clasp-button,			

## CLASS 24.—Continued.

Cuff-holders—			
44. Clasp-clasp,			
45. Clasp-hook,			
46. Clasp-pin,			
47. Pin-button,			
48. Pin-fastener.			
266. Draw-strings.			
73. Fasteners combined—			
74. Buckle-buckle—			
75. Separably-connected,			
76. Buckle-pin,			
77. Buckle separable—			
78. Pivoted-lever buckle,			
79. Clasp-buckle,			
80. Clasp-button,			
81. Clasp-clasp—			
82. Pin-attached,			
83. Separably-connected,			
84. Clasp-hook,			
85. Clasp-pin,			
86. Pin-hook,			
87. Pin-pin—			
88. Separably-connected.			
89. Interchangeable button-loop and pin.			
140. Lacing devices—			
141. Eyelets—			
142. Plastic-head,			
143. Laces and tips,			
144. Studs—			
145. Closed-loop,			
146. Hook,			
147. Moving-part,			
148. Plastic-head,			
149. Roller.			
1. Miscellaneous.			
49. Necktie-fasteners—			
50. Bands—			
53. Depressors—			
54. Button-engaging,			
55. Pin or spur,			
51. End-securing pin,			
52. Gripping,			
56. Button-engaging—			
57. Adjustable,			
58. Cord-loop,			
60. Pin-attached,			
59. Pivoted or sliding jaw,			
61. Collar-button combined—			
62. Clasp-attached,			
63. Pin-attached,			
64. Separable fastener,			
65. Tie-attached hook.			
66. Paper-clips.			
67. Paper-fasteners.			
150. Pin-fasteners—			
151. Armpit-shields,			
156. Guards—			
157. Pivoted,			
158. Sliding,			
159. Wire,			
155. Loss-preventing devices,			
Pin-fasteners—			
153. Paper—			
154. Suspending devices,			
160. Pivoted,			
161. Resilient,			
162. Sliding,			
152. Upholstering.			
267. Pivoted edge stays.			
268. Resilient connections.			
201. Separable fasteners—			
202. Buttonhole-protectors,			
Head-and-socket—			
208. Axial closures—			
210. Hinged cap-plate,			
209. Link-button,			
212. Pivoted-head,			
211. Pivoted or sliding,			
lock,			
213. Resilient-head—			
214. Rigid-socket,			
215. Wire,			
216. Resilient-socket—			
Rigid-head,			
217. Wire,			
219. Rigid-head,			
220. Rigid-socket,			
221. Rotating-head,			
222. Lateral closures—			
223. Auxiliary locking devices,			
224. Resilient,			
225. Hook-and-eye—			
226. Sheet-metal—			
227. Metallic attachment,			
228. Wire—			
229. Metallic attachment,			
230. Lateral-sliding,			
203. Multiple—			
204. Integrally-connected,			
205. Multiple-operated,			
207. Runway-engaging,			
206. Step-adjusting.			
231. Snap-hooks—			
241. Locking devices—			
242. Tension-operated,			
243. Pivoted—			
233. Spring—			
234. Coil—			
235. Axial,			
236. Resilient—			
237. One-piece,			
238. Sliding—			
239. Spring,			
240. Watch-chain-attaching.			
265. Strap-end-attaching devices.			
68. Strap-tighteners—			
69. Cam-lever and loop—			
70. Step-adjusted,			
71. Strap-attached folding-lever.			
72. Trousler guards and straps.			

# DIVISION XXXV.—CONTINUED.

## CLASS 40.—CARD, PICTURE, AND SIGN EXHIBITING.

(XXXV.)

(For definitions see Supplement No. 4, p. 2983.)

### Subclasses.

- |                              |                              |
|------------------------------|------------------------------|
| 107. Calendars—              | 78. Changeable exhibitors—   |
| 122. Card-pockets,           | 79. Shifters—                |
| 109. Charactered slide,      | 80. Reciprocating,           |
| 110. Character-markers,      | 81. Revolving,               |
| 117. Double reel and web,    | 82. Revolving pack-case,     |
| 118. Endless,                | 83. Reel reel and web—       |
| 119. Hinged leaves,          | 84. Revolving,               |
| 108. Pencil attachments,     | 85. Spring-rewind,           |
| 123. Printing arrangement,   | 65. Sliding plates—          |
| 111. Rotatable—              | 66. Bolt-operated,           |
| 112. Clutch take-up,         | 105. Train-order holders.    |
| 113. Disk,                   | 2. Checks, labels, and tags— |
| 114. Single-axis—            | 3. Animal-markers,           |
| 115. Disk,                   | 4. Bottle,                   |
| 116. Single reel and web,    | 5. Changeable-reading—       |
| 120. Stands,                 | 6. Baggage-checks,           |
| 121. Tear-off tablets.       | 7. Display-box labels,       |
| 124. Card-racks.             | 8. Door-knob and drawer-     |
| 28. Changeable exhibitors—   | pull,                        |
| 29. Aerostatic,              | 20. Fasteners—               |
| 41. Axle-operated—           | 21. Band,                    |
| 42. Double reel and web,     | 22. Barbed,                  |
| 43. Endless,                 | 23. Clasp,                   |
| 44. Rotatable,               | 24. Pin-loop,                |
| 106. Couplings,              | 26. Spring-hook,             |
| 60. Door-operated,           | 25. Spur,                    |
| 86. Double reel and web—     | 9. Hat,                      |
| 87. Clutch take-up—          | 10. Holders—                 |
| 88. Reversible-clutch,       | 11. Clip,                    |
| 95. Intergearred reels,      | 12. Cornice,                 |
| 93. Reversing-gears—         | 13. Hinged-clamp,            |
| 94. Clutch take-up,          | 14. Hinged-clamp and         |
| 89. Spring-rewind—           | spur,                        |
| 91. Clutch let-off—          | 15. Lock,                    |
| 92. Obstacle-trip,           | 16. Slide,                   |
| 90. Clutch take-up,          | 17. Slide and detent—        |
| 52. Electrically-controlled— | 18. Limited-movement,        |
| 53. Electromotor-oper-       | 19. Tubular,                 |
| ated,                        | 27. Reinforced.              |
| 54. Magneto-clutch let-      | 1. Exhibitors.               |
| off,                         | 152. Picture-frames—         |
| 55. Magneto-clutch take-     | 156. Card or picture retain- |
| up,                          | ers,                         |
| 56. Obstacle-controlled      | 153. Cord or wire,           |
| circuit-closers—             | 157. Cover-retainers,        |
| 57. Electromotor-oper-       | 154. Embossed, molded,       |
| ated,                        | rolled, or stamped,          |
| 58. Magneto-clutch let-      | 155. Extensible, folding, or |
| off,                         | knockdown,                   |
| 59. Magneto-clutch           | 158. Mats, mounts, and       |
| take-up,                     | backs—                       |
| 96. Endless—                 | 159. Pocketed,               |
| 99. Clutch take-up,          | 160. Relief-picture.         |
| 97. Hinged leaves,           | 145.1. Picture-hangers—      |
| 98. Radial leaves,           | 145.2. Adjustable—           |
| 37. Fluid-operated—          | 145.3. Cord—                 |
| 38. Double reel and web,     | 145.4. Pawl and ratchet,     |
| 39. Rotatable—               | 145.6. Slide and clamp,      |
| 40. Illuminated,             | 145.5. Steps,                |
| 100. Folding web and reel—   | 145.9. Molding-hooks,        |
| 101. Clutch take-up,         | 145.7. Plaque-retainers,     |
| 102. Hinged leaves—          | 145.8. Retaining-cord.       |
| 103. Leaf-releasers,         | 146. Picture stands and sup- |
| 104. Leaf-turners,           | ports—                       |
| 61. Inscription-covers—      | 148. Frames,                 |
| 62. Sliding,                 | 147. Illuminators,           |
| 63. Interchangeable          | 149. Single-blank—           |
| plates—                      | 150. Braces,                 |
| 64. Sliding,                 | 151. Wire.                   |
| 30. Motor-operated—          | 125. Signs—                  |
| 31. Double reel and web,     | 127. Aerostatic,             |
| 32. Endless,                 | 126. Dummies,                |
| 33. Rotatable—               | 136. Embossed, molded,       |
| 34. Disk,                    | rolled, or stamped,          |
| 35. Hinged leaves,           | 128. Hanging,                |
| 36. Shifters,                | 130. Illuminated—            |
| 45. Obstacle-operated—       | 131. Lamp attachments,       |
| 46. Double reel and web—     | 132. Lamp-boxes—             |
| 47. Clutch take-up,          | 133. Perforated-face,        |
| 48. Endless,                 | 134. Luminous-paint,         |
| 49. Rotatable,               | Interchangeable let-         |
| 50. Shifters,                | ters—                        |
| 51. Pendulum-operated,       | 142. Fasteners—              |
| 67. Pivoted plates,          | 143. Prong,                  |
| 68. Rotatable—               | 144. String,                 |
| 69. Clutch take-up,          | 141. Glass,                  |
| 70. Disk—                    | 135. Multiple-layer,         |
| 71. Clutch take-up,          | 129. Portable,               |
| 72. Hinged leaves—           | 145. Post attachments,       |
| 73. Clutch take-up,          | 137. Variable-reading,       |
| 77. Illuminated,             | 138. Vibratory—              |
| 76. Multiple-drum con-       | 139. Motor-operated.         |
| trollers,                    |                              |
| 74. Radially-movable         |                              |
| leaves—                      |                              |
| 75. Clutch take-up,          |                              |

## CLASS 241.—GARMENT-SUPPORTERS. (XXXV.)

### Subclasses.

- |                             |                           |
|-----------------------------|---------------------------|
| 1. Hose—                    | Waist-line body-garment—  |
| 2. Belt-attached,           | Shoulder-suspension—      |
| 3. One-point suspension,    | 18. Cast-offs,            |
| 4. Shoulder-suspension.     | 19. Connections—          |
| 5. Limb-encircling—         | 20. Lacing,               |
| 6. Garment-attached.        | 21. Resilient,            |
| 7. Waist-line body-garment— | 22. Self-adjusting—       |
| 8. Belts,                   | 23. Cord or strap,        |
| 9. Belt-attached,           | 24. Pivoted,              |
| 10. Belt-inserted section,  | 25. Garment attachments,  |
| 11. Belt-slide,             | 26. Step-adjusting,       |
| 12. Shoulder-suspension—    | 27. Tabs—                 |
| 13. Belt-converting,        | 28. Drawers-supports,     |
| 14. Binding-clips—          | 29. Two-point suspension, |
| 15. Button-loop,            | 30. Waist-formers—        |
| 16. Connection,             | 31. Buckles.              |
| 17. Braces combined,        |                           |

## CLASS 116.—SIGNALS. (XXXV.)

### Subclasses.

- |                        |                        |
|------------------------|------------------------|
| 1. Alarms—             | Bell-hanging—          |
| 53. Bicycle,           | 40. Ringing.           |
| Burglar—               | 12. Flagstaff-holders. |
| 41. Combined,          | 31. Indicators—        |
| 42. Detonating,        | 45. Barbers' turns,    |
| 44. Ringing,           | 60. Medicine-dose,     |
| 11. Fire,              | 47. Office,            |
| 15. Leak,              | 48. Peg,               |
| 58. Poison-indicators, | 49. Rotary,            |
| 23. Shoal,             | 50. Sliding,           |
| 59. Steam-whistles.    | 52. Station.           |
| 32. Annunciators.      | Locks—                 |
| 33. Bells—             | 61. Alarm—             |
| 55. Bicycle—           | 62. Detonating.        |
| 56. Wheel-actuated,    | 22. Semaphores.        |
| 34. Call,              | Signals—               |
| 35. Door,              | 9. Car,                |
| 37. Sleigh.            | 13. Fog,               |
| 38. Bell-hanging—      | 18. Nautical.          |
| 39. Pulls,             | 19. Pneumatic.         |

## CLASS 132.—TOILET. (XXXV.)

### Subclasses.

- |                              |                      |
|------------------------------|----------------------|
| 30. Boot-holders, horns, and | 23. Hair structures— |
| jacks.                       | 24. Making.          |
| 3. Combs—                    | 25. Hat-fasteners.   |
| 17. Cleaners,                | 8. Mustache-guards.  |
| 16. Personal wear.           | 27. Pin-holders.     |
| 18. Hair-crimpers.           | 28. Powder-puffs.    |
| 19. Hair-curlers—            | 29. Razor-cleaners.  |
| 20. Rotary,                  | 15. Shaving-cups.    |
| 21. Self-heating.            | 11. Toilet-cases.    |
| 22. Hair-fasteners.          | 12. Toothpicks.      |



# DIVISION XXXVI.

EXAMINER MORTON.

CLASSES.—156, Curtains, Shades, and Screens; 33, Drafting; 34, Driers; 159, Engraving; 73, Measuring Instruments, 170, Wind-Wheels.

## CLASS 156.—CURTAINS, SHADES, AND SCREENS. (XXXVI.)

### Subclasses.

- |                                   |                                     |
|-----------------------------------|-------------------------------------|
| 15. Awnings—                      | 25. Shade—                          |
| 42. Frames,                       | 25. Fastenings,                     |
| 43. Rigid, intermovable sections, | 26. Guides,                         |
| 44. Roll and reel,                | 27. Hangers, vertically-adjustable, |
| 45. Roller-gearing,               | 28. Raisers,                        |
| 41. Carriage-curtains,            | 29. Rollers—                        |
| 32. Curtain-cord tighteners,      | 30. Dropping,                       |
| 40. Curtain-tassels,              | 34. Friction-brake,                 |
| Curtain—                          | 35. Ratchet-and-pawl,               |
| 33. Holders,                      | 36. Spring,                         |
| 19. Poles,                        | 31. Sticks,                         |
| 20. Poles and rings,              | 17. Venetian blinds,                |
| 22. Pole-supports,                | 13. Window-cornices,                |
| 21. Rings and pins,               | 14. Window-screens—                 |
| 46. Theater,                      | 37. Exits,                          |
| 16. Flexible blinds,              | 38. Extensible,                     |
| 23. Shade and curtain hangers,    | 39. Rolling,                        |
| Shade—                            | 10. Window-shades,                  |
| 24. Brackets,                     |                                     |

## CLASS 33.—DRAFTING. (XXXVI.)

### Subclasses.

- |                           |                           |
|---------------------------|---------------------------|
| 13. Beam-compasses.       | 17. Drawing-pens.         |
| 1. Calipers and dividers— | 5. Ellipsographs.         |
| 21. Joints,               | 7. Pantographs.           |
| 22. Legs and points,      | 16. Perspectographs.      |
| 23. Point-parallelizing,  | 8. Plotters.              |
| 24. Proportional,         | 12. Protractors.          |
| 25. Setters—              | 18. Rulers—               |
| 26. Screws—               | 19. Parallel,             |
| 27. Tangent,              | 20. Slate and blackboard. |
| 28. Vertical,             | 9. Scribes.               |
| 2. Curve-scribers.        | 10. Stair-curves.         |
| 15. Drawing-boards.       | 14. T-squares.            |

## CLASS 34.—DRIERS. (XXXVI.)

### Subclasses.

- |                           |                         |
|---------------------------|-------------------------|
| 1. Absorbent.             | 25. Push-bar.           |
| 2. Baffles and screens.   | 26. Racks and stands.   |
| 3. Condensers.            | Reels—                  |
| Cylinder—                 | 27. Skein,              |
| 4. External,              | 28. Tray-carrier,       |
| Internal—                 | 29. Winding.            |
| 5. Rotary horizontal,     | 30. Retort.             |
| 6. Rotary inclined,       | 31. Rolls.              |
| 7. Stationary horizontal, | 32. Rotary disk.        |
| 8. Stationary inclined,   | Shafts—                 |
| 9. Vertical.              | 33. Inclined,           |
| 10. Disk and hopper.      | 34. Vertical,           |
| 11. Elevator.             | 35. Zigzag.             |
| 12. Endless carrier.      | 36. Shaft and cylinder. |
| 13. Endless scraper.      | 37. Shaft and shelf.    |
| Floors—                   | 38. Shaking.            |
| 14. Fixed,                | 39. Shelf and tray.     |
| Filting-section.          | 40. Sliding rack.       |
| 16. Forms and platens.    | 41. Solar.              |
| 17. Frames and trays.     | 42. Spiral.             |
| Heaters.                  | 43. Stirrers.           |
| 19. Houses and kilns.     | 44. Trough and beater.  |
| 20. Lath and chain.       | 45. Trough and screw.   |
| 21. Pans.                 | 46. Truck and rail—     |
| 22. Pan and boiler.       | 47. Inclined.           |
| 23. Pan and scraper.      | 48. Web.                |
| 24. Processes.            |                         |

## CLASS 159.—ENGRAVING. (XXXVI.)

### Subclasses.

- |                                  |                     |
|----------------------------------|---------------------|
| 1. Engraving and tools.          | Engraving-machines— |
| 2. Engraving-machines—           | 7. Pantographic,    |
| 3. Duplicating—                  | 8. Profiling,       |
| 4. Automatic,                    | 9. Rosette          |
| 5. Jointed arms,                 | 10. Routing.        |
| 6. Electromagnetic tool control, |                     |

## CLASS 73.—MEASURING INSTRUMENTS. (XXXVI.)

### Subclasses.

- |                              |                              |
|------------------------------|------------------------------|
| 2. Anemometers.              | Calipers—                    |
| 3. Balances—                 | 105. Dial,                   |
| 101. Electrical attachments, | 106. Stem.                   |
| 99. Equal arms,              | 184. Calorimeters.           |
| 102. Pick-up weights,        | 9. Cloth-measuring machines. |
| 100. Recording.              | 11. Coin-testers.            |
| 4. Barometers.               | 125. Compasses—              |
| 5. Bathometers.              | 126. Azimuth attachments,    |
| 6. Bevels.                   |                              |

## CLASS 73.—Continued.

### Compasses—

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| 127. Deviation-correction,           | 62. Measuring vessels—               |
| 128. Deviation-indicators,           | 165. Capacity adjustable,            |
| 129. Liquid.                         | 166. Depth-indicating.               |
| 73. Conformators.                    | 167. Meters—                         |
| 13. Dividing-engines.                | 1. Air and gas,                      |
| 130. Dry measurers—                  | 12. Diaphragm,                       |
| 131. Bulk-controlled,                | 98. Disk,                            |
| Closures—                            | 28. Oscillating,                     |
| 132. Independent,                    | 30. Piston,                          |
| 133. Interacting,                    | 68. Proportional,                    |
| 134. Transfer-measure—               | 37. Rotary,                          |
| 135. Pivoted—                        | 45. Spirit.                          |
| 136. Vertical axis,                  | 80. Pitch-boards.                    |
| 137. Weight-controlled.              | 81. Planimeters.                     |
| 15. Dynamometers.                    | 72. Plumb-bobs.                      |
| 16. Gages—                           | 71. Plumb-levels.                    |
| 138. Assorting,                      | 31. Pressure-gages—                  |
| 139. Collocating—                    | 109. Bourdon,                        |
| 140. Clapboards,                     | 110. Diaphragm,                      |
| 141. Tool and work,                  | 111. Piston.                         |
| 142. Wheel and axle,                 | Scales—                              |
| 143. Conforming,                     | 39. Beams,                           |
| 107. Depth,                          | 8. Cart,                             |
| 144. Dimension,                      | 23. Hydrostatic,                     |
| 145. Marking—                        | 41. Pans,                            |
| 146. Edge-guided,                    | 29. Pendulum,                        |
| 77. Micrometer,                      | 121. Platform,                       |
| 147. Size,                           | 104. Price,                          |
| 66. Surface,                         | 38. Sack,                            |
| 148. Templet,                        | 46. Spring.                          |
| 67. Track,                           | 122. Ships' logs.                    |
| 149. Truing,                         | 113. Spacing instruments.            |
| 54. Water—                           | 42. Specific-gravity apparatus.      |
| 82. Float.                           | 44. Sphygmoscopes.                   |
| 20. Grain-tallies.                   | 112. Spirometers.                    |
| 22. Hydrometers.                     | 47. Squares—                         |
| 24. Hygrometers.                     | 115. Center,                         |
| Instruments—                         | 116. Folding.                        |
| 150. Compound—                       | 103. Steelyards.                     |
| 185. Primarily calipers or dividers, | 117. Telemetry.                      |
| 186. Primarily gages,                | 50. Testing illuminating fluids      |
| 187. Squares and bevels,             | 51. Testing-machines.                |
| 188. Squares and levels,             | 52. Thermometers—                    |
| 151. Miscellaneous,                  | 118. Metallic,                       |
| 152. Pivots and bearings.            | 119. Oven,                           |
| 79. Lacometers.                      | 32. Pyrometers,                      |
| 63. Leather-measuring.               | 85. Telethermometers.                |
| Levels—                              | 21. Tollers.                         |
| 70. Spirit—                          | 120. Ullage-rods.                    |
| 124. Clinometer.                     | 55. Weather-vanes.                   |
| 153. Liquid-measurers—               | Weighers—                            |
| 154. Pumps—                          | Alternating-feed—                    |
| Rotary,                              | 168. Divided-bucket,                 |
| Regulable—                           | 169. Separate buckets,               |
| Transferrers—                        | 170. Compound,                       |
| Independent,                         | 171. Discharge-poised—               |
| Interacting,                         | 172. Power,                          |
| 158. Union transferrer,              | Drip-poised—                         |
| Transferers—                         | 173. Force-feed,                     |
| 159. Commounted                      | 174. Multiple valves,                |
| Independent—                         | 175. Single-valve.                   |
| 161. Pumps,                          | 176. Electrically-controlled,        |
| 162. Interacting,                    | 177. Miscellaneous,                  |
| 163. Transferring measure.           | 178. Oscillating-bucket,             |
| 164. Union transferrer.              | 179. Positively-actuated             |
| Measures—                            | 180. Regulating and charge handling, |
| 36. Rotary,                          | 181. Removable-receptacle,           |
| 40. Scale,                           | 182. Rotary-bucket,                  |
| 64. Shoemakers',                     | 183. Successive-operation.           |
| 123. Speed,                          | 56. Weights.                         |
| 48. Tailors',                        |                                      |
| 49. Tape.                            |                                      |

## CLASS 170.—WIND-WHEELS. (XXXVI.)

### Subclasses.

- |                        |                                |
|------------------------|--------------------------------|
| Automatic regulators—  | Wind-wheels—                   |
| 8. Bucket,             | 1. Horizontal,                 |
| 9. Float,              | 7. Oscillating,                |
| 10. Float and ratchet, | 2. Vertical feathering-blades, |
| 11. Piston,            | 3. Vertical solid-wheel.       |
| 12. Tilting-tank.      |                                |
| 5. Gearing.            |                                |

# DIVISION XXXVII.

EXAMINER A. F. KINNAN.

CLASSES.—173, Electricity: Conductors; 175, Electricity: General Applications; 176, Electric Lighting.

## CLASS 173.—ELECTRICITY. CONDUCTORS. (XXXVII.)

### Subclasses.

13. Conductors—	Connectors—
81. Anti-inductive,	Socket-and-plug—
264. Insulated—	275. Multiple-contact.
265. Air,	276. Single-contact,
266. Armored—	263. Wire-splices—
267. Spiral strip,	303. Beveled clamp,
Joints—	Sleeved—
268. Insulated.	304. Bent or upset end,
Connectors—	305. Crimped or twisted.
259. Binding-posts,	28. Insulators—
269. Cord-terminals,	311. Bushings,
270. Couplers—	312. Cleats,
271. Air-pipe contacts,	313. Conductor-holders—
272. Water-pipe contacts,	314. Divided insulator,
273. Line-tappers,	315. Hooks,
Plugs—	316. Non-aling slots,
274. Multiple-contact,	317. Twisted-slot,
310. Single-contact,	318. High-potential,
262. Rail-bonds—	319. Insulated nails,
Surface-connected—	320. Insulating fabrics,
277. Bolt or clamp,	321. Supports.
278. Soldered,	31. Lightning-rods.
279. Spring-pressed,	244. Machines for covering.
280. Socket-connected—	251. Supports and hangers.
281. Riveted,	
282. Rivet and wedge,	
283. Wedge,	

## CLASS 176.—ELECTRIC LIGHTING. (XXXVII.)

### Subclasses.

Incandescing composi-	Lights—
tions—	Arc—
323. Electrodes—	Positive-feed—
324. Carbon,	109. Gear-clutch,
326. Manipulators,	220. Step gear-clutch,
325. Structures,	112. Special features,
327. Filaments and glowers—	18. Incandescent—
328. Carbon,	317. Second-class conduc-
331. Connections,	tors,
330. Manipulators,	113. Special features—
329. Structures,	336. Portable battery-
332. Mantles.	lamps,
Lights—	335. Speculum,
Arc—	98. Sockets and keys,
110. Arc and incandes-	196. Stopper,
cent,	318. Vapor-conductors—
104. Gravity-feed—	322. Mercury,
105. Clutch,	19. Systems—
216. Double-dog clutch,	166. Automatic-regulation,
106. Gear-clutch,	129. Car,
217. Pivot-dog clutch,	197. Display,
218. Ring-clutch,	167. Hand-regulation,
111. Non-feeding,	130. Secondary-battery.
107. Positive-feed—	319. X-ray apparatus—
108. Clutch,	320. Tubes.
219. Electric gear-clutch,	

## CLASS 175.—ELECTRICITY. GENERAL APPLICATIONS. (XXXVII.)

### Subclasses.

265. Applications, special.	Switchboards—
Circuit-breakers—	300. Details,
Automatic—	301. Movable-contact—
Electromagnetic—	302. Pivoted-arm,
267. Non-closable,	303. Plunger,
268. Overload,	304. Plates,
269. Overload and under-	305. Plates and strips,
load,	306. Strips.
270. Retarded,	Switches—
271. Reverse-current,	Automatic—
272. Underload.	279. Electromagnetic,
Cut-outs—	280. Suspended-wire-con-
273. Thermal—	trolled,
274. Branch,	281. Electromagnetic,
275. Heater.	308. Fluid-pressure,
276. Lamp,	309. Float-operated,
277. Plug,	282. Mechanical—
278. Successive.	283. Longitudinally-recip-
181. Demagnetizing.	rocating—
264. Discharging static	284. Snap,
charges.	285. Loop.
21. Electromagnets.	Oscillating snap—
Igniting devices—	286. Auxiliary snap-con-
Automatic,	tact,
296. Cigar,	287. Double snap,
117. Inductional,	288. Single snap,
116. Manual,	289. Rotary—
91. Portable.	290. Rotary snap,
30. Lightning-arresters—	291. Push-button,
214. Magnetic,	292. Thermal cut-out,
215. Thermal.	293. Two-button snap.
182. Ore-detectors.	Systems—
Switchboards—	294. Safety,
298. Miscellaneous,	183. Testing.

# DIVISION XXXVIII.

EXAMINER TUCKER.

CLASSES.—166, Artesian and Oil Wells; 215, Bottles and Jars; 119, Care of Live Stock; 35, Educational Appliances; 43, Fishing and Trapping; 120, Stationery; 125, Stone-Working.

## CLASS 166.—ARTESIAN AND OIL WELLS. (XXXVIII.)

### Subclasses.

- |                         |                        |
|-------------------------|------------------------|
| 1. Casing-heads.        | Earth-auger—           |
| 2. Cleaning.            | 13. With carriers.     |
| 3. Drilling and boring. | 6. Reamers.            |
| 4. Drill-jars.          | 10. Sucker-roads.      |
| 5. Drill-rod grabs.     | 7. Tube-clamps.        |
| 11. Earth-auger—        | 8. Tubing and packing. |
| 12. Bits,               | 9. Walking-beams.      |

## CLASS 119.—CARE OF LIVE STOCK. (XXXVIII.)

### Subclasses.

- |                                 |                              |
|---------------------------------|------------------------------|
| Animal-stocks—                  | 52. Nose-bags.               |
| 14. Hog-traps,                  | 61. Nose-rings.              |
| 15. Horse and cattle,           | 12. Pokes.                   |
| 16. Sheep.                      | 5. Poultry culture—          |
| 46. Bird cages and houses.      | 68. Brooders,                |
| 17. Catching and holding tools. | 70. Nest-eggs,               |
| 55. Collars.                    | 69. Nests.                   |
| 48. Currycombs—                 | 62. Ringers and markers.     |
| 65. Cleaning attachments.       | 63. Shields.                 |
| 47. Gags and muzzles—           | 9. Stanchions.               |
| 66. Weaners, nostril-a-t-       | Steading and feeding—        |
| tached,                         | 20. Calf-feeding,            |
| 67. Weaning-bits.               | 21. Combined troughs and     |
| 18. Gangways.                   | racks,                       |
| 3. Grooming.                    | 71. Drinking fountains and   |
| Hitching devices—               | troughs,                     |
| 56. Posts and post attach-      | 22. Feed-racks,              |
| ments,                          | 23. Feed-troughs—            |
| 57. Rotary-arm,                 | 64. Automatic,               |
| 58. Spring-reel,                | 24. Releasing devices,       |
| 59. Ties,                       | 25. Stall-floors,            |
| 60. Travelers.                  | 26. Stalls, sheds, and pens. |
| 51. Hoppies.                    | 53. Stock-cars.              |
| 4. Incubators.                  | 27. Stock-sorters.           |
| 54. Manure-pouches.             |                              |

## CLASS 215.—BOTTLES AND JARS. (XXXVIII.)

### Subclasses.

- |                             |                         |
|-----------------------------|-------------------------|
| 1. Bottle attachments—      | Bottle-stoppers—        |
| 2. Clip,                    | 59. Tube—               |
| 16. Nursing-bottle holders. | 60. Vent.               |
| 3. Bottle-cases.            | 60. Bottle-valves—      |
| 8. Bottle-stoppers—         | Controllers—            |
| 9. Cap—                     | 61. Spring,             |
| 10. Crimped,                | 62. Weight—             |
| 11. Elastic,                | 63. Pendent,            |
| 12. Frangible,              | 64. Float,              |
| 13. Screw,                  | 65. Guards—             |
| 14. Disk,                   | 66. Caps,               |
| 15. Dose—                   | 67. Fasteners,          |
| 16. Droppers,               | 68. Multiple,           |
| 100. Ejectors,              | 103. Necks, separable,  |
| 17. Expanding—              | 114. Siphon-head—       |
| 18. Cam,                    | 115. Spring-controlled, |
| 19. Screw,                  | 69. Valves and seats.   |
| 20. Fasteners—              | 70. Bottles—            |
| 21. Ball—                   | 71. Compartment,        |
| 22. Locking,                | 72. Indicating—         |
| 23. Cap—                    | 112. Internal,          |
| 24. Tie,                    | 113. Poison,            |
| 101. Expanding,             | 73. Jugs,               |
| 25. Spring—                 | 77. Necks—              |
| 26. Clip,                   | 78. Breakable—          |
| 27. Wire,                   | 105. Bottom-fillers,    |
| 28. Internal—               | Stopper-fasteners—      |
| 29. Ball,                   | 106. Disk,              |
| 30. Extension—              | 107. Ring,              |
| 31. Wire,                   | 108. Spring,            |
| 32. Plug,                   | Stoppers—               |
| 33. Locks,                  | 109. Expanding,         |
| 34. Pivoted—                | 110. Multiple,          |
| 35. Locking—                | 111. Plastic,           |
| 36. Ball,                   | 79. Nesting,            |
| 37. Cam—                    | 117. Nursing.           |
| 38. Plug,                   | 80. Jar-closures—       |
| 39. Rotary,                 | 81. Cap—                |
| 40. Lever—                  | 82. Grooved,            |
| 41. Lever and yoke,         | 83. Ring,               |
| 42. Plug—                   | 84. Screw—              |
| 43. Slotted,                | 85. Inclines,           |
| 44. Top—                    | 86. Ring,               |
| 45. Slotted,                | 87. Clamp—              |
| 46. Wire,                   | 88. Lever,              |
| 47. Screw,                  | 89. Screw,              |
| 48. Spring—                 | 90. Pivoted,            |
| 49. Catch,                  | 91. Spring—             |
| 50. Plug—                   | 92. Bow,                |
| 51. Composite,              | 93. Inclines,           |
| 52. Screw,                  | 94. Packing,            |
| 53. Pullers,                | 95. Stoppers—           |
| 54. Tube—                   | 96. Expanding,          |
| 55. Valve—                  | 97. Plug—               |
| 56. Ball,                   | 98. Screw.              |
| 57. Rotary,                 | 99. Jars—               |
| 58. Screw,                  | 104. Ejecting.          |
| 102. Spring,                |                         |

## CLASS 35.—EDUCATIONAL APPLIANCES. (XXXVIII.)

### Subclasses.

- |                     |                     |
|---------------------|---------------------|
| 1. Alphabet-blocks. | 6. Maps.            |
| 2. Arithmetic.      | 12. Miscellaneous.  |
| 3. Astronomy.       | 8. Penmanship.      |
| 15. Blackboards.    | 9. Reading.         |
| 13. Cryptography.   | 10. Slates.         |
| 5. Globes.          | 14. Slate-mufflers. |

## CLASS 43.—FISHING AND TRAPPING. (XXXVIII.)

### Subclasses.

- |                               |                        |
|-------------------------------|------------------------|
| 2. Decoys.                    | Insect-destroyers—     |
| Fishing—                      | 1. Catchers,           |
| 28. Bait and tackle holders,  | 5. Fumigators,         |
| 3. Fishways,                  | 14. Powder-dusters.    |
| 4. Floats,                    | Traps—                 |
| 6. Harpoons and spears,       | 19. Cage,              |
| 7. Hooks—                     | 20. Fish,              |
| 30. Artificial-bait,          | 21. Impalement,        |
| 31. Spring-actuated,          | 22. Insect—            |
| 9. Nets and seines,           | 32. Mechanical,        |
| 29. Oyster and pisci culture, | 23. Jaw,               |
| 11. Oyster-dredges,           | 24. Self and ever set, |
| 12. Oyster rakes and tongs,   | 25. Sporting,          |
| 15. Reels—                    | 26. Victim-set,        |
| 33. Spring-operated,          | 27. Wire-choker.       |
| 16. Rods.                     |                        |
| 17. Sinkers.                  |                        |



# DIVISION XXXVIII.—CONTINUED.

## CLASS 120.—STATIONERY. (XXXVIII.)

(For definitions see Supplement No. 3, p. 2698.)

### Subclasses.

- |                                     |                                 |
|-------------------------------------|---------------------------------|
| 24. Blotters—                       | 8. Miscellaneous.               |
| 25. Hand-attached,                  | 75. Moisteners—                 |
| 26. Rotary,                         | 76. Roller,                     |
| 27. Supports.                       | 77. Mucilage-holders—           |
| 1. Combination devices—             | 78. Brushes,                    |
| 2. Blotters and rulers,             | 79. Scrapers,                   |
| 3. Inkstands and calendars,         | 80. Spreaders—                  |
| 4. Inkstands and pen-racks—         | 81. Flexible-cap.               |
| 5. Self-opening,                    | 82. Paper-weights.              |
| 6. Moisteners and sealers,          | 9. Pen and pencil cases—        |
| 7. Pencil-sharpeners and erasers.   | 20. Automatic-catch,            |
| 28. Copy-holders—                   | 13. Chalk-holders,              |
| 29. Movable copy—                   | 21. Clutch—                     |
| 30. Roller-feed—                    | 22. Automatic,                  |
| 31. Positive-grip,                  | 10. Compound—                   |
| 32. Step-by-step movement,          | 11. Automatic,                  |
| 33. Movable-marker—                 | 12. Screw-and-slide,            |
| 34. Step-by-step movement,          | 16. Magic,                      |
| 35. Envelop-openers.                | 14. Polypointed,                |
| 36. Erasers—                        | 18. Screw,                      |
| 37. Combination,                    | 15. Sharpening,                 |
| 39. Knife,                          | 19. Slide,                      |
| 38. Pencil attachments,             | 17. Step-by-step.               |
| 40. Rubber.                         | 83. Pencils—                    |
| 41. Erasing-shields.                | 84. Attachments.                |
| 42. Fountain-pens—                  | Pencil-sharpeners—              |
| 50. Feeders—                        | Implements—                     |
| 51. Modified-nib,                   | 85. Compound—                   |
| 52. Modified pen-section,           | 86. Reciprocatory-              |
| 46. Force-feed and filler—          | movement,                       |
| 47. Piston,                         | 88. Knife-gages,                |
| 49. Retractable pen-section,        | 87. Point-protectors,           |
| 43. Special-use,                    | 89. Reciprocatory - move-       |
| 44. Stylographic—                   | ment—                           |
| 45. Spring-actuated spindle,        | 90. Shaving,                    |
| 48. Valved.                         | 91. Revolving-pencil,           |
| 53. Hand and arm rests—             | 92. Rotary-movement—            |
| 56. Adjustable-height,              | 93. Shaving,                    |
| 55. Book-supported,                 | 94. Machines—                   |
| 54. Traveling.                      | 96. Rotating-cutter,            |
| 57. Inkstands—                      | 95. Rotating cutter and pencil. |
| 59. Barometer,                      | 97. Pen-extractors.             |
| 58. Desk-attached,                  | 98. Penholders—                 |
| 71. Dip-gages,                      | 100. Angular adjustment,        |
| 60. Fountain—                       | 102. Grips—                     |
| 61. Automatic,                      | 103. Detachable,                |
| 62. Compressible ink-bag,           | 104. Ink-guards,                |
| 63. Flexible-diaphragm—             | 99. Multiple,                   |
| 64. Automatic,                      | 101. Releasing,                 |
| 65. Gravity-feed,                   | 105. Ruling-guards,             |
| 66. Movable dip-cup,                | 106. Slant devices—             |
| 72. Opening and closing devices,    | 107. Supporting.                |
| 67. Self-closing,                   | 108. Pen racks and cleaners.    |
| 68. Self opening and closing,       | 109. Pens—                      |
| 69. Supplementary-reservoir,        | 113. Reservoir attachments—     |
| 73. Supports,                       | 114. Nib-attached—              |
| 70. Tilting-reservoir.              | 115. Integral,                  |
| 74. Letter-sheets and postal cards. | 110. Ruling                     |
|                                     | 111. Shading,                   |
|                                     | 112. Stylus.                    |
|                                     | 23. Scholars' companions.       |
|                                     | 116. Sealing-wax appliers.      |

## CLASS 125.—STONE-WORKING. (XXXVIII.)

### Subclasses.

- |                                  |                             |
|----------------------------------|-----------------------------|
| 2. Channeling-machines.          | 12. Millstone paint-staffs. |
| 3. Chucks for rock-drills.       | 13. Millstone-picks.        |
| 4. Diamond-tools.                | 14. Mining-machines.        |
| 5. Dressing slate.               | 15. Monuments.              |
| 6. Dressing stone.               | 18. Sawing stone.           |
| 10. Drills.                      | 19. Tools.                  |
| 11. Millstone-dressing machines. |                             |

# DIVISION XXXIX.

EXAMINER A. W. COWLES.

CLASSES.—4, Baths and Closets; 137, Water Distribution.

## CLASS 4.—BATHS AND CLOSETS. (XXXIX.)

### Subclasses.

- |                                       |   |
|---------------------------------------|---|
| 1. Basins and stands.                 | 34. Float-valves.                       |
| 24. Bath and basin fittings.          | 35. Plugs, covers, and strainers.       |
| 2. Bathing apparatus—                 | 36. Sinks.                              |
| 25. Bidets,                           | 12. Urinals.                            |
| 26. Shower                            | 13. Vapor-baths.                        |
| 27. Tubs.                             | 13. Water-closets—                      |
| 19. Bed-pans.                         | 16. Plunger,                            |
| 5. Closet-cisterns—                   | 22. Siphon,                             |
| 28. Combined supply and flush valves. | 17. Valved.                             |
| 29. Couplings, miscellaneous.         | 23. Washout.                            |
| 30. Disinfecting apparatus.           | 21. Water-closet and sewer ventilation. |
| 30. Dry closets—                      | 18. Water-closet attachments.           |
| 31. Magazine,                         | 37. Water-closet couplings.             |
| 32. Portable,                         | 15. Water-closet valves.                |
| 33. Receptacles.                      |   |

## CLASS 137.—WATER DISTRIBUTION. (XXXIX.)

### Subclasses.

- |                                |                                |
|--------------------------------|--------------------------------|
| 1. Aquariums.                  | Mains and pipes—               |
| 32. Check-valves.              | 73. Taps,                      |
| Cocks and faucets—             | 72. Thawing,                   |
| 26. Compound,                  | 91. Thread-protectors          |
| 4. Reciprocating valves,       | 69. Valves.                    |
| 5. Sliding gates,              | 59. Nozzle-holders.            |
| 27. Tank,                      | 17. Nozzles—                   |
| 35. Thermal,                   | 55. Compressible,              |
| 6. Tube-compressors,           | 56. Flexible,                  |
| 7. Turning plugs.              | 57. Splasher,                  |
| 9. Cut-offs and spouts.        | 58. Systems.                   |
| (1. Fountains.                 | Pipe-couplings—                |
| (2. Funnels.                   | 88. Ball-and-socket,           |
| (3. Hose-patches.              | 28. Detachable,                |
| (3. Hydrants and plugs.        | 34. Detachable and flexible,   |
| (4. Irrigating and sprinkling— | 29. Permanent,                 |
| (3. Carts,                     | 89. Train-pipe, hand-operated, |
| (4. Heads,                     | 30. Valved.                    |
| (0. Insertors,                 | 53. Safety-valves.             |
| (5. Pipes,                     | 18. Sampling-tubes.            |
| (7. Pumps,                     | 20. Siphons.                   |
| (2. Roses and cans,            | 80. Sprayers—                  |
| (1. Shakers,                   | 81. Cap,                       |
| (6. Systems.                   | 86. Centrifugal                |
| Mains and pipes—               | 84. Cutters,                   |
| 0. Cleaners,                   | 82. Piston,                    |
| 1. Cushions,                   | 87. Reaction,                  |
| 4. Fish-guards,                | 83. Rose,                      |
| 0. Hose,                       | 85. Terminal-cock.             |
| 7. Leak-detectors,             | 21. Tanks—                     |
| 5. Pipes,                      | 68. Automatic.                 |
| 6. Stoppers,                   | 54. Valves for inflation.      |
| 9. Systems—                    | 31. Water-supply hose-holders. |
| House,                         |                                |

# DIVISION XL.

EXAMINER MERRITT.

CLASSES.—190, Baggage; 194, Check-Controlled Apparatus; 150, Cloth, Leather, and Rubber Receptacles; 232, Deposit and Collection Receptacles; 41, Fine Arts; 240, Lighting-Fixtures; 224, Package and Article Carriers; 229, Paper Receptacles; 206, Special Receptacles and Packages; 217, Wooden Receptacles.

## CLASS 190.—BAGGAGE. (XL.)

(For definitions see Bulletin No. 8, p. 6.)

### Subclasses.

- |                             |     |                               |
|-----------------------------|-----|-------------------------------|
| 1. Convertible—             |     | 56. Traveling-bags—           |
| 2. Bed,                     |     | 56. Lock-plate handle-fasten- |
| 3. Bureau—                  |     | ings,                         |
| 6. Front-opening—           | 53. | Materials and patterns,       |
| 7. Compartment-front,       | 61. | Safety-attachers,             |
| 4. Top and front opening—   | 59. | Strap-loop fasteners,         |
| 5. Compartment-top,         | 48. | Top-opening.                  |
| 8. Chair,                   | 19. | Trunks—                       |
| 11. Desk or table—          | 20. | Circular-end,                 |
| 12. Camp-kits,              | 37. | Corner shields and buffers,   |
| 9. Shelved—                 | 21. | Extensible and sectional—     |
| 10. Desk-flap,              | 22. | Telescopic,                   |
| 13. Wardrobe—               | 36. | Followers,                    |
| 14. Extensible—             | 24. | Frames and interior           |
| 15. Telescopic.             |     | braces,                       |
| 16. Sample-cases—           | 39. | Handles,                      |
| 17. Link-supported tray.    | 27. | Harness,                      |
| 41. Traveling-bags—         | 40. | Materials,                    |
| 60. Article-attachers,      | 26. | Protecting-harness,           |
| 55. Bag-fastening handles,  | 25. | Reinforcing-strips,           |
| 42. Combined,               | 38. | Supporting devices,           |
| 51. Compartments and parti- | 29. | Tray movers and sup-          |
| tions—                      |     | porters—                      |
| 52. Exterior and auxiliary, | 30. | Lid-operated move-            |
| 44. Extensible—             |     | ment,                         |
| 45. Telescopic—             | 34. | Link connections and          |
| 46. Auxiliary opening,      |     | props,                        |
| 47. Rack-fastener,          | 31. | Pivoted-tray—                 |
| 54. Frame and bag-leather   | 32. | Vertical-pivot,               |
| joints,                     | 33. | Sliding-tray,                 |
| 43. Frameless and folding,  | 35. | Trays,                        |
| 49. Frames—                 | 28. | Valances,                     |
| 50. Stays,                  | 23. | Wall.                         |
| 57. Handles—                |     |                               |
| 58. Fasteners,              |     |                               |

## CLASS 194.—CHECK-CONTROLLED APPARATUS. (XL.)

(For definitions see Supplement No. 2, p. 2553.)

### Subclasses.

- |                           |                             |
|---------------------------|-----------------------------|
| 4. Anomalous check—       | 97. Fraud-preventives—      |
| 5. Fluid-delivery         | 98. Check-exhibitors,       |
| 96. Check-engaged alarm.  | 99. Combined size and mate- |
| 6. Check in circuit—      | rial testers,               |
| 7. Article-delivery,      | 100. Material-testers—      |
| 8. Telephones.            | 101. Magnets,               |
| 9. Check-operated switch— | 102. Size-testers,          |
| 10. Article-delivery,     | 103. Weight-testers.        |
| 11. Electric meters,      | 92. Lock-preventing—        |
| 12. Exhibitors,           | 93. Article-delivery.       |
| 13. Fluid-delivery,       | 17. Lock-releasing—         |
| 14. Induction-coils,      | 18. Gravity—                |
| 15. Phonographs,          | 19. Forwardly-turning re-   |
| 16. Telephones.           | leased part—                |
| 94. Check-rotated wheel.  | Article-delivery—           |
| 72. Connectors—           | 23. Chance,                 |
| 91. Article-delivery,     | 24. Endless carrier—        |
| Check—                    | 25. Magazine,               |
| 74. Reciprocating and     | 26. Rotary feed,            |
| turning parts—            | 27. Sliding pusher,         |
| 75. Article-delivery,     | 28. Exhibitors,             |
| 76. Chance and game ap-   | 29. Fluid-delivery,         |
| paratus,                  | 30. Game apparatus,         |
| 77. Fluid-delivery,       | 20. Measuring instru-       |
| 78. Reciprocating parts—  | ments—                      |
| 79. Article-delivery—     | 21. Scales,                 |
| 80. Sliding pusher,       | 31. Phonographs,            |
| 81. Chance and game ap-   | 32. Reciprocating released  |
| paratus,                  | part                        |
| 82. Fluid-delivery,       | 37. Article-delivery—       |
| 83. Turning parts—        | 38. Endless carrier,        |
| 88. Article-delivery,     | 39. Sliding pusher,         |
| 89. Chance and game ap-   | 40. Article-securing        |
| paratus,                  | stands,                     |
| 84. Concentric—           | 41. Chance and game ap-     |
| 85. Article-delivery,     | paratus,                    |
| 86. Chance and game       | 42. Exhibitors,             |
| apparatus,                | 43. Fluid-delivery,         |
| 87. Fluid-delivery,       | 33. Measuring instru-       |
| 90. Fluid-delivery,       | ments—                      |
| 73. Gravity.              | 34. Pull-testers,           |

## CLASS 194.—Continued.

- |                            |                           |
|----------------------------|---------------------------|
| Lock-releasing—            | Lock-releasing—           |
| Gravity—                   | Thrust—                   |
| Reciprocating released     | Pivoted detent—           |
| part—                      | Reciprocating coin-       |
| Measuring instru-          | mover—                    |
| ments—                     | 59. Door and lid locks,   |
| 35. Scales,                | 60. Fluid-delivery,       |
| 36. Strike-testers,        | 56. Measuring instru-     |
| 44. Telephones,            | ments,                    |
| 45. Reset turning released | 61. Turning coin-mov-     |
| part—                      | er—                       |
| 48. Article-delivery,      | 63. Article-delivery,     |
| 49. Article-securing       | 64. Article-securing      |
| stands,                    | stands,                   |
| 50. Chance and game ap-    | 65. Door and lid locks,   |
| paratus,                   | 66. Fluid-delivery,       |
| 51. Door and lid locks,    | 62. Measuring instru-     |
| 52. Exhibitors,            | ments,                    |
| 53. Fluid-delivery,        | 67. Reciprocating detent— |
| 46. Measuring instru-      | 68. Article-delivery,     |
| ments—                     | 69. Reciprocating coin-   |
| 35. Scales,                | mover,                    |
| 47. Thrust—                | 70. Turning coin-mover.   |
| Pivoted detent—            | 1. Miscellaneous          |
| 54. Article-delivery,      | 2. Article-delivery,      |
| 71. Reciprocating coin-    | 3. Fluid-delivery.        |
| mover—                     | 95. Shutter.              |
| 57. Article-delivery—      |                           |
| Sliding pusher,            |                           |
| 58.                        |                           |

## CLASS 150.—CLOTH, LEATHER, AND RUBBER RECEPTACLES. (XL.)

(For definitions see Bulletin No. 17, p. 33.)

### Subclasses.

- |                           |                               |
|---------------------------|-------------------------------|
| Bags—                     | Mail-bags—                    |
| 1. Body construction,     | 23. Fasteners—                |
| 3. Closures—              | 26. Pivoted catches, sliding- |
| 10. Expanding-spring,     | bar,                          |
| 6. Folding bar and clamp, | 25. Stud and keyhole slot,    |
| 7. Folding-flap,          | 24. Tongue and staple,        |
| 8. Mouth piece, cap, or   | 27. Turn-bolt with catches,   |
| stopper,                  | 14. Multiple pockets.         |
| 5. Parallel bars,         | Porte-monnaies and pocket-    |
| 4. Pivoted jaws,          | books—                        |
| 9. Seam-valve,            | 34. Article-holding,          |
| 11. Shirring-cords,       | 38. Bill-holding,             |
| 12. Handles,              | 28. Body construction—        |
| 2. Harvesting.            | 32. Blanks,                   |
| 48. Baskets and buckets—  | 30. Gussets and partitions,   |
| 49. Folding-frame,        | 33. Handles,                  |
| 50. Rigid-bottom,         | 31. Stays and braces,         |
| 51. Rigid-frame.          | 29. U-frame,                  |
| 52. Covers and cases—     | 39. Card and ticket cases,    |
| 53. Collar and cuff,      | 42. Closures—                 |
| 54. Tire and wire coil.   | 43. Band or strap,            |
| Mail-bags—                | 44. Collapsible walls,        |
| Closures—                 | 45. Folding-frame,            |
| 17. Collapsible-frame—    | 46. Hinged-lid,               |
| 19. Folding-flap,         | 37. Coin-holding,             |
| 18. Quadrangular,         | 35. Combination,              |
| 21. Folding-flap—         | 40. Key-pouches,              |
| 22. Corner-fold,          | 36. Puzzle and secret com-    |
| 20. Manifold, locking-    | partment,                     |
| tongue,                   | 47. Safety attachments,       |
| 16. Pivoted jaws,         | 41. Stamp-books.              |
| 13. Construction,         |                               |



# DIVISION XL.—CONTINUED.

## CLASS 232.—DEPOSIT AND COLLECTION RECEPTACLES. (XL.)

(For definitions see Bulletin No. 8, p. 4.)

### Subclasses.

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| 2. Ballot-boxes—                   | 27. Letter-boxes—                   |
| 3. Ball.                           | 30. Collection and delivery,        |
| 44. Closures and chutes—           | 31. Collection devices—             |
| 55. Coin-trap—                     | 32. Safety-receptacle—              |
| 56. Endless carrier,               | 33. Auxiliary,                      |
| 57. Pivoted—                       | 24. Compartment—                    |
| 58. Coöperating chute—             | 25. Coöperative closures—           |
| 59. Closure—                       | 26. Distributing-guide,             |
| 60. Multiple-trap.                 | 38. Frame construction,             |
| 61. Rotatable—                     | 19. House—                          |
| 62. Turnstile,                     | 20. Collection and delivery—        |
| 63. Gravity reverse-checks,        | 21. Compartment,                    |
| 64. Letter-box—                    | 22. Door or window jamb,            |
| 65. Discharge,                     | 23. Inside fastener,                |
| 66. Guard-fingers,                 | Indicators—                         |
| 67. Name-plate,                    | 37. Door-operated,                  |
| 68. Pivoted trap—                  | 33. Package clips and pockets,      |
| 69. Double,                        | 28. Pivoted-receiver,               |
| 70. Pocket—                        | 34. Signals—                        |
| 71. Bottomless,                    | 35. Sight—                          |
| 72. Integral door,                 | 36. Door-controlled,                |
| 73. Turnstile,                     | 37. Sound—                          |
| 74. Serrated shelves.              | 38. Door-controlled,                |
| 75. Fare-boxes—                    | 39. Supports and fastenings—        |
| 76. Change-gates,                  | 40. Movably-attached,               |
| 77. Collection devices—            | 18. Ticket registers and recorders. |
| 78. Safety-receptacle—             | 41. Milk-receptacles—               |
| 79. Auxiliary,                     | 42. Door or window jamb,            |
| 80. Illumination,                  | 43. Funnel-filler.                  |
| 81. Multiple coin slot and runway. | 1. Miscellaneous.                   |
| 2. Receivers.                      | 4. Savings-boxes—                   |
| 3. Ticket and change.              | 5. Inspection,                      |
| 1. Ticket, car,                    | 6. Frame-fastenings.                |
| 8. Ticket punching and canceling.  |                                     |
| 7. Letter-boxes—                   |                                     |
| 9. Auxiliary, coöperating,         |                                     |

## CLASS 41.—FINE ARTS. (XL.)

### Subclasses.

- |                         |                            |
|-------------------------|----------------------------|
| 2. Artificial flowers.  | 12. Medals.                |
| 1. Artists' appliances. | 21. Metal ornamentation.   |
| 3. Badges.              | 34. Mosaics and inlaying.  |
| 8. Banners and flags.   | 13. Ornamenting cloth.     |
| 4. Canvas-stretchers.   | 15. Pictures.              |
| 7. Easels.              | 32. Plastic ornamentation. |
| 2. Etching designs.     | 16. Sculpture.             |
| 5. Gilding, leaf.       | 23. Surface ornamentation— |
| 6. Glass ornamentation— | 33. Vitreous.              |
| Frosting—               | 18. Transfers.             |
| Abrading,               |                            |
| Chipping.               |                            |

## CLASS 240.—LIGHTING-FIXTURES. (XL.)

### Subclasses.

- |                                    |                              |
|------------------------------------|------------------------------|
| 1. Canopy shades and reflectors.   | 30. Drop-lights—             |
| 2. Ceiling-blocks.                 | 31. Cord-supports,           |
| 3. Chandeliers, gas.               | 32. Counterweight,           |
| 4. Conduits—                       | 33. Friction and clutch,     |
| 5. Boxes, pipe connections,        | 34. Spring-drum.             |
| 6. Conductors, bracket-supported,  | 35. Gas brackets and valves. |
| 7. House-wiring—                   | 36. Gas-fittings.            |
| 8. Outlet-boxes—                   | 37. Globe attachments.       |
| 9. Adjustable-face,                | 38. Globe-manipulators.      |
| 10. Plugged inlets,                | 39. Globes.                  |
| 11. Removable-wall,                | 40. Guards.                  |
| 12. Integral sections,             | 41. Harps and hangers.       |
| 13. Joints,                        | Lights—                      |
| 14. Junction-boxes—                | Incandescent—                |
| 15. Thermal cut-outs.              | Special features—            |
| 16. Overground—                    | Chandelier—                  |
| 17. Panel-board type,              | Couplings,                   |
| 18. Underground—                   | Extensible.                  |
| 19. Panel-board type,              | 43. Posts.                   |
| 20. Lining,                        | Reflector—                   |
| 21. Plural pipes—                  | 44. Hooded,                  |
| 22. Bracket-supported,             | 45. Miscellaneous,           |
| 23. Separable-wall—                | 46. Side.                    |
| 24. Conductors, bracket-supported, | 47. Refracting attachments.  |
| 25. Plural pipes,                  | Shade-supports—              |
| 26. Wire-drawing—                  | 48. Base,                    |
| 27. Creepers,                      | 49. Candle,                  |
| 28. Motors,                        | 50. Double-clamp,            |
| 29. Sectional rods.                | 51. Drop.                    |
| Drop-lights—                       | 52. Miscellaneous,           |
| Burner attachments,                | 53. Spider,                  |
|                                    | 54. Top.                     |
|                                    | 55. Umbrella.                |
|                                    | 56. Street-light hangers.    |

## CLASS 224.—PACKAGE AND ARTICLE CARRIERS. (XL.)

(For definitions see Bulletin No. 9, p. 4.)

### Subclasses.

- |                                 |                               |
|---------------------------------|-------------------------------|
| 5. Body and belt attached—      | Hand—                         |
| 6. Baby or patient,             | Handle and strap—             |
| 26. Bag, case, or frame—        | 58. Strap-loop,               |
| 27. Chatelaine,                 | 52. Handle, bar, and strap—   |
| 25. Bracket,                    | 53. Harness,                  |
| 13. Cartridge—                  | 54. Strap-tightener,          |
| 22. Belt or sling—              | 49. Sling,                    |
| 23. Loop and pocket holders—    | 47. Traveling-bag,            |
| 24. Skeleton,                   | 48. Tray.                     |
| 20. Block-cell,                 | 43. Saddle-bags—              |
| 17. Compartment,                | 44. Traveling-bag.            |
| 14. Garment-attached,           | 29. Vehicle—                  |
| 21. Individual holders,         | 30. Bicycle—                  |
| 15. Magazine—                   | 39. Bracket—                  |
| 16. Longitudinal feed,          | 40. Folding,                  |
| 18. Revolving,                  | 41. Handle-bar supported,     |
| 19. Tilting pocket,             | 31. Convertible and combined, |
| 7. Game,                        | 42. Hooks,                    |
| 28. Hand or wrist attached,     | 32. Receivers—                |
| 8. Knapsack—                    | 33. Collapsible-frame,        |
| 9. Convertible—                 | 35. Forward-reach supported,  |
| 10. Tent,                       | 36. Handle-bar supported,     |
| 12. Slings,                     | 34. Wrapper,                  |
| 11. Slings with belts.          | 37. Spring-holders—           |
| 45. Hand—                       | 38. Frame.                    |
| 46. Convertible and combined,   | 4. Watch and clock.           |
| 50. Handle and clamping plates— | 1. Weapon—                    |
| 51. Strap-tightener,            | 2. Sheaths and scabbards—     |
| 55. Handle and strap—           | 3. Hangers.                   |
| 56. Cord or chain—              |                               |
| 57. Cord-hook,                  |                               |

# DIVISION XL.—CONTINUED.

## CLASS 229.—PAPER RECEPTACLES. (XL.)

(For definitions see Supplement No. 1, p. 2584.)

### Subclasses.

- |                         |                         |
|-------------------------|-------------------------|
| 53. Bags—               | 18. Folded-blank boxes— |
| 57. Bottoms—            | 19. Sectors,            |
| 58. Square—             | 20. Slide—              |
| 59. Corner-slits,       | 20. Dispensing,         |
| 60. Diamond-fold,       | 30. Trays—              |
| 61. Seamless,           | 32. Corner-flaps—       |
| 62. Closures—           | 33. Cover extension,    |
| 63. Cord,               | 34. Infolding side,     |
| 64. Fluted,             | 35. Interlocking—       |
| 65. Metallic,           | 36. Cover extension,    |
| 56. Compartment,        | 31. Corner-folds        |
| 66. Opening,            | 22. Triangular,         |
| 55. Reinforced,         | 37. Tubes—              |
| 54. Satchel.            | 38. Closures, inserted  |
| 67. Barrels.            | 39. flaps—              |
| 6. Boxes—               | 40. Interlocking,       |
| 43. Closures—           | 40. Wrappers.           |
| 45. Fasteners—          | 68. Envelops—           |
| 46. Cord,               | 75. Blanks,             |
| 47. Metallic,           | 76. Closures—           |
| 44. Hinged,             | 77. Fasteners—          |
| 41. Collapsible,        | 78. Metallic,           |
| 15. Compartment,        | 79. Seal,               |
| 12. Cylindrical—        | 80. Sealing—            |
| 13. Pressed bottoms and | 81. Perforated,         |
| tops,                   | 83. Soluble-dye,        |
| 7. Dispensing,          | 82. Tongues,            |
| 42. Division-plates,    | 84. Tongue,             |
| 52. Handles,            | 69. Coin,               |
| 14. Lined,              | 70. Coupon,             |
| 51. Openers, ripping,   | 71. Display,            |
| 8. Ornamental,          | 85. Openers—            |
| 8.5. Savings,           | 86. Cord,               |
| 48. Seams,              | 72. Pocket,             |
| 9. Slide—               | 73. Return,             |
| 10. Compartment,        | 74. Tag,                |
| 11. Dispensing,         | 93. Tubes, cylindrical. |
| 49. Stays—              | 1. Vessels—             |
| 50. Cord.               | 2. Angular,             |
| 16. Folded-blank boxes— | 3. Cylindrical—         |
| 24. Buckets—            | 4. Pressed,             |
| 25. Closures—           | 5. Liquid-proofed.      |
| 26. Integral-cover,     | 87. Wrappers—           |
| 27. Compartment—        | 88. Bag,                |
| 28. Cells—              | 89. Bottle—             |
| 29. Wrapper,            | 90. Corrugated,         |
| 21. Cylindrical,        | 91. Padded,             |
| 17. Dispensing,         | 92. Mailing-sheets.     |
| 23. Multiple,           |                         |

## CLASS 206.—SPECIAL RECEPTACLES AND PACKAGES. (XL.)

(For definitions see Bulletin No. 18, p. 14.)

### Subclasses.

- |                                |                              |
|--------------------------------|------------------------------|
| 46. Packages—                  | Receptacles—                 |
| 50. Cloth holts, boards, etc., | 8. Hat and headwear—         |
| 47. Combination—               | 9. Racks, frames, and        |
| 48. Matches with cigarettes,   | 10. rings,                   |
| etc.,                          | 10. Insect-proof,            |
| 56. Dispensing—                | 20. Match-safes—             |
| 58. Paper-rolls,               | 28. Baffle,                  |
| 57. Paper sheets,              | 31. Box-holders and con-     |
| 49. Embroidery, laces, and     | vertible boxes,              |
| ruching.                       | 29. Match-packages,          |
| 68. Incandescent mantles,      | 33. Pocket—                  |
| Multiple article—              | 35. Cigar-cutters and        |
| 65. Nested, stayed, or in-     | wind-guards,                 |
| terbraced,                     | 34. Withdrawal igniting,     |
| 66. Needles and pins,          | 36. Scratchers and wind-     |
| 67. Pencils, etc.,             | guards,                      |
| 60. Plates and sheets—         | 30. Side-supported,          |
| 61. Fly-paper,                 | 21. Single-delivery—         |
| 62. Fragile and sensitive,     | 22. Grooved roller,          |
| 51. Ribbons, braids, and       | 23. Grooved slide—           |
| trimmings—                     | 24. Horizontal move-         |
| Rolls or spools—               | ment,                        |
| 53. Clamps—                    | 25. Picker-arm,              |
| 54. Centrally-attached,        | 26. Sliding pusher—          |
| 55. Layer-retained,            | 27. Pocket,                  |
| 52. Inclosed,                  | 32. Withdrawal igniting,     |
| 59. Rolls and reels,           | 12. Medicine-chests,         |
| 69. Rubber bags and tubing,    | 13. Musical instruments—     |
| 63. Stationery,                | 14. Violin,                  |
| 64. Tbread,                    | 15. Phonograph-cylinders,    |
| 70. Watch-springs.             | 37. Pocket and personal use— |
| 1. Receptacles—                | 41. Cigars and tobacco,      |
| 2. Acid-proof,                 | 38. Combination,             |
| 3. Ammunition,                 | 43. Hypodermic syringes,     |
| 4. Camp and lunch kits,        | etc.,                        |
| 44. Display—                   | 42. Pellets and granules,    |
| 45. Terraced or stepped        | 39. Ticket-cases—            |
| shelves,                       | 40. Ejecting,                |
| 5. Eyeglass or spectacle—      | 19. Sacramental,             |
| 6. Hinged parts,               | 16. Tools and appliances—    |
| 11. Fur,                       | 17. Bits and drills,         |
| 7. Garment,                    | 18. Watch-movement.          |

## CLASS 217.—WOODEN RECEPTACLES. (XL.)

(For definitions see Supplement No. 4, p. 3005.)

### Subclasses.

- |                             |                            |
|-----------------------------|----------------------------|
| 72. Barrels—                | Boxes—                     |
| 98. Bungs—                  | Cells—                     |
| 113. Bushings,              | 24. Clip,                  |
| 112. Extractors,            | 25. Cord,                  |
| 106. Locking—               | 35. Cushioned,             |
| 107. Bayonet-and-screw,     | 26. Plate—                 |
| 108. Expanding—             | 27. Cushioned,             |
| 109. Gasket,                | 28. Pocket,                |
| 110. Plugs—                 | 29. Separable,             |
| 111. Frangible-dia-         | 30. Strip—                 |
| phragm,                     | 31. Locking—               |
| 114. Protectors and cancel- | 32. Angular,               |
| ers,                        | 33. Bent,                  |
| 99. Valved—                 | 34. Cushioned,             |
| 100. Automatic—             | 56. Closures—              |
| 103. Collapsible,           | 57. Hinged—                |
| 102. Controllers,           | 58. Display,               |
| 104. Flexible-dia-          | 59. Sliding,               |
| phragm,                     | 60. Supports—              |
| 105. Liquid-seal,           | 61. Detachable,            |
| 101. Safety,                | 62. Sliding—               |
| 73. Cases,                  | 63. Display,               |
| 76. Closures—               | 7. Compartment—            |
| 77. Braced,                 | 10. Display,               |
| 81. Covers—                 | 8. Folding—                |
| 82. Compartment,            | 9. Display,                |
| 83. Hinged,                 | 36. Crates—                |
| 84. Sliding,                | 37. Bicycle,               |
| 85. Wire,                   | 38. Foldlug,               |
| 80. Croze and cbamfer,      | 52. Cushioned—             |
| 78. Expanding—              | 53. Padded,                |
| 79. Wedge,                  | 54. Spring—                |
| 89. Fasteners,              | 55. Spiral,                |
| 87. Gates,                  | 49. Cylindrical,           |
| 75. Compartment,            | 40. Fruit-box,             |
| 86. Followers,              | 43. Knockdown—             |
| 91. Hoops—                  | 44. Cylindrical and bilge, |
| 92. Elastic,                | Folding—                   |
| 93. Retainers,              | 47. Horizontal-pivot,      |
| 94. Tighteners—             | 46. Horizontal and         |
| 95. Screw,                  | vertical pivot,            |
| 90. Hoop-sockets,           | 48. Vertical pivot,        |
| 96. Joints,                 | 45. Sectional,             |
| 97. Moisteners,             | 39. Poultry,               |
| 88. Staves,                 | 42. Ventilating,           |
| 74. Ventilated.             | 51. Wired slats,           |
| 115. Barrel-stands—         | 11. Display,               |
| 121. Racks,                 | 64. Followers,             |
| 118. Rolling,               | 65. Joints,                |
| 119. Swing—                 | 12. Knockdown              |
| 120. Roller-supports,       | Folding—                   |
| 116. Tilting—               | 15. Horizontal-pivot.      |
| 117. Rolling.               | 14. Horizontal and verti-  |
| 122. Baskets—               | cal pivot,                 |
| 123. Bottoms,               | 16. Vertical-pivot,        |
| 124. Closures,              | 13. Sectional,             |
| 125. Handles.               | 69. Stays—                 |
| 1. Bent—                    | 70. Driving—               |
| 2. Angular.                 | 71. Wire,                  |
| 5. Boxes—                   | 66. Straps—                |
| 6. Block,                   | 67. Corrugated,            |
| 127. Bottle-mailing cases,  | 63. Wire,                  |
| 18. Cells—                  | 17. Walls,                 |
| 23. Bent,                   | 126. Bucket-ears.          |
| 19. Bottle—                 | 3. Linings.                |
| 20. Cord,                   | 4. Tanks.                  |
| 21. Plate,                  |                            |
| 22. Strip,                  |                            |

# DIVISION XLI.

EXAMINER BROWN.

CLASSES.—213, Railway Draft Appliances; 152, Resilient Tires and Wheels.

## CLASS 213.—RAILWAY DRAFT APPLIANCES. (XLI.)

### Subclasses.

- |                             |                               |
|-----------------------------|-------------------------------|
| 39. Buffers—                | Couplings—                    |
| 60. Draw-bar actuated,      | Janney type—                  |
| 2. Fluid-pressure.          | 12. Pivoted vertical latches, |
| Bumpers—                    | 13. Safety-brackets,          |
| 3. Rigid.                   | 14. Vertical sliding pins,    |
| Couplings—                  | Link—                         |
| 35. Arrow-head and jaws,    | 62. End openers,              |
| 36. Bails,                  | 63. Handled,                  |
| 37. Beveled link and fixed  | 15. Star-wheel detent,        |
| catch,                      | 47. Link-lifters,             |
| 38. Beveled link and swing  | 49. Miller hook—              |
| catch,                      | 66. Swing-heads,              |
| 61. Chains,                 | 50. Pins and links,           |
| 40. Combined air-brake,     | Pin-supports—                 |
| Combined draw-bar and       | 16. Balls,                    |
| hook—                       | 51. Gravity,                  |
| 4. With link,               | 52. Spring,                   |
| 43. Headed link and V-slot, | 54. Rolling detent,           |
| 44. Hook and catch,         | 53. Rotary heads,             |
| 45. Hook and link—          | 55. Sliding detent,           |
| 5. Combined,                | 56. Swing-pins,               |
| 65. Janney type—            | 57. Tools,                    |
| 6. Emergency-releases,      | 58. Train,                    |
| 7. Gravity-locks,           | 17. Twin jaws,                |
| 8. Horizontal sliding       | 59. Uncoupling-levers.        |
| latches,                    | 42. Draw-bars—                |
| 9. Knuckle-openers,         | 41. Continuous,               |
| Knuckle-openers and         | 64. Friction-buffers,         |
| locks—                      | 18. Street-car.               |
| Combined,                   | Locomotives—                  |
| 11. Pivoted horizontal      | 19. Side-track push-rods.     |
| latches,                    | 20. Street-car poles.         |

## CLASS 152.—RESILIENT TIRES AND WHEELS. (XLI.)

### Subclasses.

- |                           |                         |
|---------------------------|-------------------------|
| 28. Spring-wheels.        | Tires—                  |
| Tires—                    | Pneumatic—              |
| 1. Cushion—               | Armored—                |
| 2. Antislipping,          | 16. Antislipping,       |
| 3. Armored—               | 17. Externally,         |
| 4. Antislipping,          | 18. Internally,         |
| 6. Fastening devices—     | 19. Divided treads,     |
| 7. Sectional channels,    | Fastening devices—      |
| 5. Inclosed cores,        | 21. Sectional channels, |
| 8. Metallic springs,      | 22. Multiple chambers,  |
| 9. Sectional,             | 23. Repairing—          |
| 10. Cushion and pneumatic | 24. Bandages,           |
| combined,                 | 25. Healing compounds,  |
| 11. Inflating—            | 26. Plugs and patches,  |
| 12. Valves,               | 27. Tools.              |
| 13. Pneumatic—            |                         |
| 14. Antislipping,         |                         |



# DIVISION OF TRADE-MARKS AND DESIGNS.

EXAMINER CHAPMAN.

## CLASS 165.—Designs; Prints and Labels; Trade-Marks.

### CLASS 165.—DESIGNS.

The subclasses conform as nearly as possible to those of the mechanical classes.

#### PRINTS AND LABELS.

Not classified, but arranged in chronological order and preserved for reference in the Examiner's room.

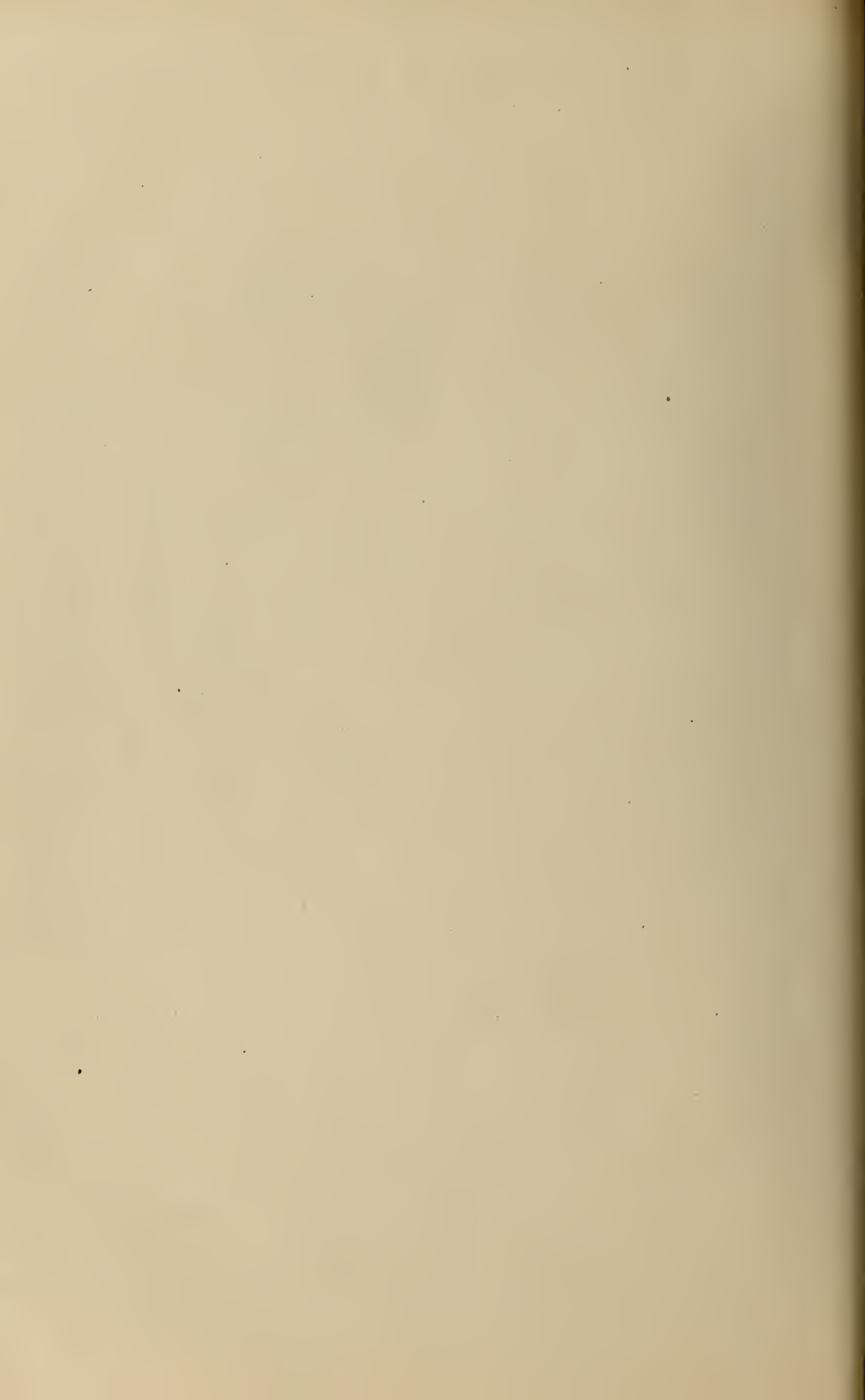
#### TRADE-MARKS.

##### *Classification of Merchandise.*

1. Raw or partly-prepared materials.
2. Receptacles.
3. Baggage, horse equipments, portfolios, and pocket-books.
4. Abrasive, detergent, and polishing materials.
5. Adhesives.
6. Chemicals, medicines, and pharmaceutical preparations.
7. Cordage.
8. Smokers' articles, not including tobacco products.
9. Explosives, firearms, equipments, and projectiles.
10. Fertilizers.
11. Inks and inking materials.
12. Masonry materials.
13. Hardware and plumbing and steam-fitting supplies.
14. Metals and metal castings and forgings.
15. Oils and greases not intended for food.
16. Paints and painters' materials, not including oils and polishes.
17. Tobacco products.
18. Agricultural and dairy machinery and parts thereof.
19. Vehicles, not including engines.
20. Linoleum and oiled cloth.
21. Electrical apparatus, machines, and supplies.
22. Games, toys, and sporting goods.
23. Cutlery, machinery, and tools, and parts thereof.
24. Laundry appliances and machines.
25. Locks and safes.\*
26. Measuring and scientific appliances.
27. Horological instruments.
28. Jewelry and precious-metal ware.
29. Brooms, brushes, and dusters.
30. Crockery, earthenware, and porcelain.
31. Filters and refrigerators.
32. Furniture and upholstery.
33. Glassware.
34. Heating, lighting, and ventilating apparatus, not including electrical apparatus.
35. Belting, hose, machinery packing, and non-metallic tires.
36. Musical instruments and supplies.
37. Paper and stationery.
38. Publications.
39. Clothing.
40. Fancy goods, furnishings, and notions.
41. Canes, parasols, and umbrellas.
42. Knitted, netted, and textile fabrics.
43. Thread and yarn.
44. Dental, medical, and surgical appliances.
45. Beverages, non-alcoholic.
46. Foods and ingredients of foods.
47. Wines, except medicated.
48. Malt extracts and liquors.
49. Distilled alcoholic liquors.
50. Merchandise not otherwise classified.

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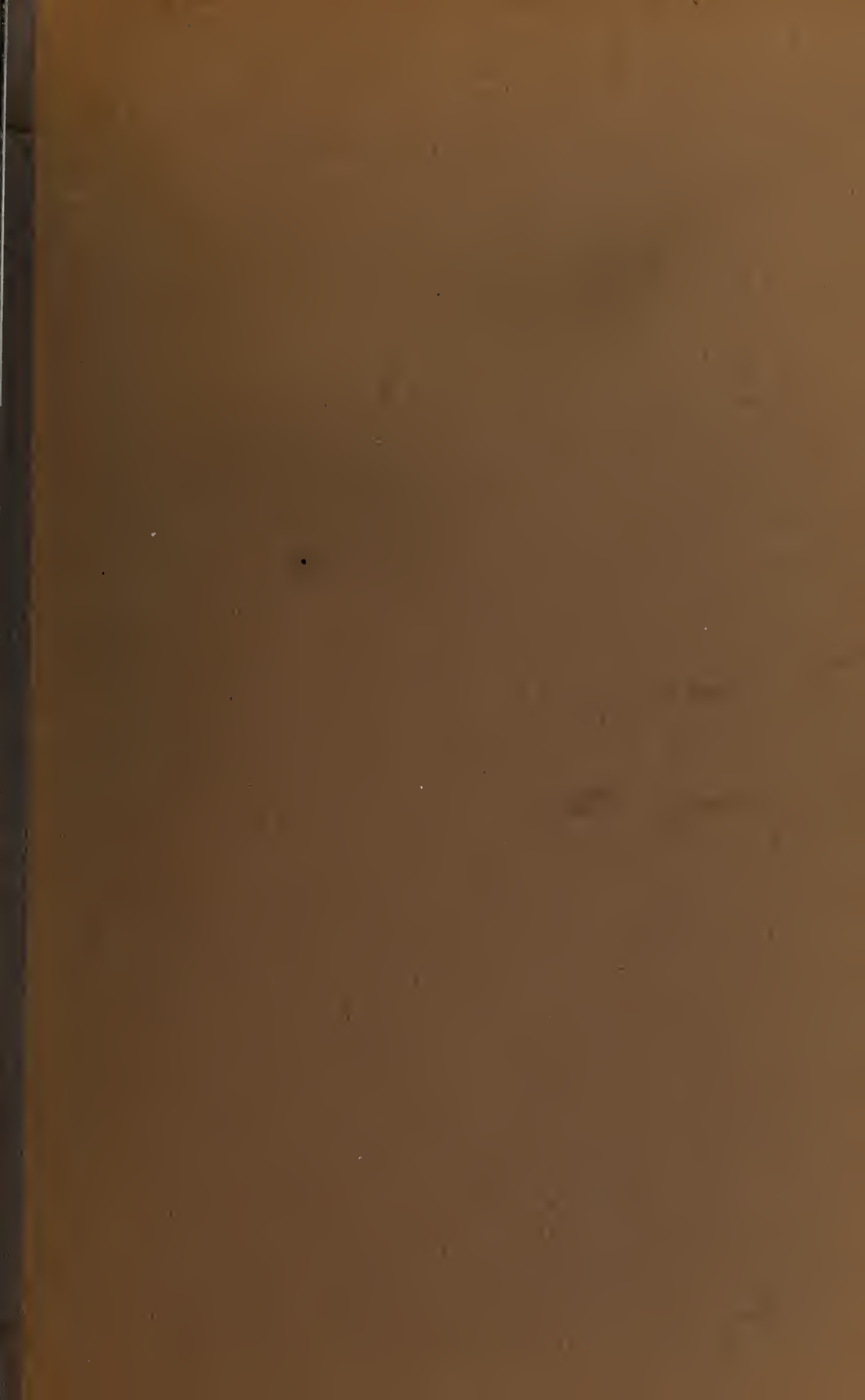














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